Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry

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INTRODUCTION

The screen based industry finances, manufactures and markets promotional entertainment, documentary and educational film, television and digital media. Screen based production is a highly complex business requiring the orchestration of diverse technical and creative skills. It also presents unique and unusual occupational health and safety hazards.

Everyone in this industry has legal and moral responsibilities for safety. These Guidelines are intended to assist people involved in the industry and not replace the laws that are in place. To determine their legal workplace duties and rights, employers/producers, supervisors and working professionals are urged to refer to the actual legislation.

These safety Guidelines incorporate applicable Government Regulations and are intended to provide a user-friendly guide to those working in the screen based industry in Nova Scotia. These Guidelines should be referred to as the minimum standards for Health and Safety in the Nova Scotia Screen Based Industry. These Guidelines do not replace the Occupational Health and Safety Act and the relevant Regulations.

The Nova Scotia Department of Labour and Advanced Education's Occupational Health and Safety Division accepts these Guidelines as being reasonable precautions to protect the health and safety of persons in the screen based industry. The Department will refer to them in conjunction with the requirements of the Occupational Health and Safety Act and Regulations and other appropriate legislation. Officers with the Department of Labour and Advanced Education will apply the requirements of the Occupational Health and Safety Act and the

relevant Regulations; it is important to remember that the responsibility of an Officer is to apply and enforce the law and they are not bound by or obliged to apply the Guidelines.

Everyone in the film and television industry needs to understand the Guidelines set forth in this book. At all times we must be vigilant in identifying potential hazards by being aware of where we are, what we are doing, with what and to whom. Safety is cost effective in both human and economic terms.

INTERPRETATION OF GUIDELINES

To provide consistency in the application of these Guidelines, the following words are defined as follows:

1. "Competent person" means a person who is:

    i. qualified because of that person's knowledge, training and experience to do the assigned work in a manner that will ensure the health and safety of every person in the workplace; and

    ii. knowledgeable about the provisions of the Act and Regulations that apply to the assigned work, and about potential or actual danger to health or safety associated with the assigned work.

2. "Designated" or "Designated competent" means designated, in writing, by the employer unless otherwise specifically provided.

    The designation must be in writing and must be clear on a person-by-person basis who is covered and who is not; however, there is no requirement for individuals' names to appear on a list. It would be adequate to refer to job titles, or similar categories, as long as there is only one job title/category per individual.

3. "Employee" means a person who is employed to do work and includes a dependent contractor.

4. "Employer" means a person who employs one or more employees or contracts for the services of one or more employees, and includes a constructor, contractor or subcontractor.

5. "Shall" refers to existing Laws and Regulations that must be adhered to.

6. "Should" refers to recognized safety methods and procedures and are recommended to be followed to ensure the health and safety of all persons.

7. "Officer" means an occupational health and safety officer appointed pursuant to this Act and includes the Director.

8. "Workplace" means any place where an employee is or is likely to be engaged in any occupation and includes any vehicle or mobile equipment used or likely to be used by an employee in an occupation.

9. "The Act" means the Nova Scotia Occupational Health and Safety Act.

GENERAL HEALTH AND SAFETY GUIDELINES

Guideline No. 1: Safety Responsibilities and Duties

A. Responsibilities

Safety is the responsibility of every individual. The following lists the duties and responsibilities of various departments. Safety takes precedence over expediency or short cuts. It is recognized that there can be unforeseen or unique situations that will require onsite judgment calls. The safety of all personnel involved must be the foremost priority.

Executive Producer/Producer/Line Producer:

1. Ensure the safety of all persons associated with the production and general public;
2. Promote safety and provide safe working conditions;
3. Provide and maintain at all workplaces any first aid supplies, and required services, and designate a person who shall be trained in first aid, as required under the Occupational Health and Safety Act (refer to Guideline No. 3); and
4. Comply with all safety Statutes and Regulations.

Production Manager:

1. Facilitate the implementation of all reasonable safeguards and ensure safe working conditions for all persons associated with the production and the general public;
2. Ensure that all employees have access to and are aware of the contents of the *Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry*; and
3. Comply with all safety Statutes and Regulations.

1st Assistant Director:

1. Ensure safe working conditions on set;
2. Ensure that appropriate safeguards are in place and that an emergency plan has been devised;
3. Confer and consult with the Stunt Coordinator, Special Effects Coordinator, Weapons Handler, Animal Handler, and Department Heads to assure that all reasonable safeguards are in place;
4. Schedule sufficient time to allow the Stunt Coordinator, Special Effects Coordinator, Weapons Handler, Animal Handler, and Department Heads to inform the performers and crew of all pertinent safety considerations;
5. Communicate on-set developments or potential hazards to the Producer and/or Production Manager; and
6. Comply with all safety Statutes and Regulations.

Department Heads:

1. Should ensure that all department functions are performed in accordance with standard practices and that all necessary precautions are observed, including the use of proper safeguards and means of personal protection, and a careful check of all new and relocated equipment before it is placed in operation;

2. Should ensure that any necessary safety equipment and/or protective devices are being used or worn;

3. Should inform their department personnel of possible hazards and how to avoid them;

4. Should inform and educate their department as to the properties of any chemicals and/or hazardous materials stored or handled by them and emergency procedures to be followed;

5. Should instruct new/inexperienced personnel on departmental safety procedures;

6. Should insist that any injured personnel secure first aid and report all injuries to the Safety Supervisor and/or 1st Assistant Director; and

7. Should comply with all safety Statutes and Regulations.

It is highly recommended that Department Heads hold informal safety meetings daily with work crews prior to job assignments. These five minute safety talks should demonstrate proper safety procedures to complete the job; use safety bulletins or other hand-out training materials; introduce new employees to safety procedures, rules and practices; and make employees aware of safety equipment available for the job (respirators, gloves, etc.)

Employee/Contractor/Freelancer:

1. Follow safe procedures and take an active role in protecting themselves and all others possibly affected by their undertakings;

2. In the case of injury, report promptly to Department Head and seek first aid or medical help without delay;

3. Immediately report any hazardous situation to Department Head;

4. Comply with all safety Statutes and Regulations; and

5. Wear or use protective devices, equipment or clothing as required.

It is in the interests of the highest possible standards of safety on the set that any report of unsafe elements be welcomed as a sign of conscientiousness and professional competence.

The Safety Representative:

1. Be elected by the crew and identified on the Call Sheet;

2. Be a representative for the crew (both production and technical, cast, and extras) in all matters concerning safety;

3. Be knowledgeable of the Occupational Health and Safety Act;

4. Be knowledgeable of the Guidelines and Regulations contained in the *Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry*;

5. Ensure that all employees have access to a copy of the *Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry*;

6. Comply with all safety Statutes and Regulations; and

7. Any employee who believes he/she is in a potentially hazardous situation, which they have been unable to resolve in consultation with their Department Head, may request the Safety Representative to mediate on their behalf and approach Management if deemed necessary.

B. Regulations

1. The Internal Responsibility System (IRS)

   The IRS is a principle on which Occupational Health and Safety is based. This principal is cited and followed in the Occupational Health and Safety Laws of numerous countries; for example the United Kingdom, Australia, United States and all the provinces in Canada. In Nova Scotia the IRS is embedded in the **Occupational Health and Safety Act**.

   The IRS clearly and concisely acknowledges that all workplace parties - employers, employees, suppliers, contractors, owners of property, self-employed persons - have shared responsibilities regarding workplace safety. The IRS further states that the primary responsibility for creating and maintaining a healthy and safe workplace is based on each parties authority and ability to do so (the degree of control they have at a workplace). It also includes a framework for participation in the workplace (an opportunity to determine how work is carried out) communications (transfer of information) and the refusal of unsafe work to ensure the parties can carry out their responsibilities. Finally, it acknowledges the role of the Nova Scotia OHS Division as not one of creating and maintaining safe and healthy workplaces (supplanting the workplace parties) but to establish and clarify the responsibilities of the parties under the law, to support them in carrying out their responsibilities and to intervene appropriately when those responsibilities are not carried out.

   Components of the IRS are readily seen throughout the Act. The requirement for Joint Occupational Health and Safety Committees or Representatives is one of the vehicles for participation in the workplace. Posting requirements and requirements for providing information ensures a workplace party's right to know.

2. Requirements for Workplaces with 5 to 19 employees inclusive

Generally, all employers are expected to apply the Act and the appropriate Regulations to their workplace and to make their employees familiar with the requirements of the Act.

For an Employer with 5 to 19 employees the Act requirements are:

i. Post a copy of the Act and the telephone number of the Department of Labour and Advanced Education: 1-800-9-LABOUR;

ii. Post any orders/decisions of an OHS officer, as well as post any appeals of orders/decisions and the results of the appeal;

iii. Post the required compliance notice once the order has been satisfied;

iv. Develop and post a written and signed OHS Policy, (refer to Appendix F);

v. Make available any Regulations that apply to the type of work being done at the workplace;

vi. Let employees know they have the right to refuse unsafe work, the right to know of any hazards or issues that affect the workplace, the right to identify and participate in the resolution of any health and safety issues arising in the workplace;

vii. Maintain equipment and premises;

viii. Provide training, instruction and supervision;

ix. Ensure proper equipment and safety gear and ensure it is used and used appropriately;

x. Provide written safe work procedures where needed;

xi. Provide a listing of all chemicals in the workplace; and

xii. If there are at least 5 employees at any one workplace ensure that a Health and Safety Representative is chosen by the employees. This representative acts as a link between the employees and the employer in matters of identifying hazards; participating in inspections and investigations; and advises on personal protective equipment, (refer to Appendix I).

Note: there is also a requirement to send a written notice to the Nova Scotia OHS Division of accidents at the workplace: 1-800-9-LABOUR

i. Within 7 days where there has been a fire or accident that has resulted in bodily injury (loss of blood, amputations, breaks, loss of consciousness, etc);

ii. Within 24 hours of any accidental explosion, whether there was any injury or not; and

iii. Within 24 hours where a person (not just an employee) has died, from any cause, in the workplace.

While there are additional regulatory requirements based on the type of work that takes place in the workplace the following regulatory requirements apply:

i. Provide WHMIS (Workplace Hazardous Materials Information System) if employees handle or work near any controlled products (cleaning agents, gasoline, solvents etc); and

ii. Ensure at least one person on duty is trained in emergency first aid and either a type 1 or type 2 first aid kit is available as appropriate.

3. Requirements for Workplaces with 20 or more employees

For a workplace of 20 or more persons, including the owner, the Act requirements are:

i. Post a copy of the Act and the telephone number of the Department of Labour and Advanced Education: 1-800-9-LABOUR;

ii. Post any orders/decisions of an OHS officer, as well as post any appeals of orders/decisions and the results of the appeal;

iii. Post the required compliance notice once the order has been satisfied;

iv. Develop and post a written and signed OHS Policy (refer to Appendix F);

v. Develop a written OHS Program as outlined in the Act (refer to Appendix G);

vi. Make available any Regulations that apply to the type of work being done in the workplace;

vii. Let employees know they have the right to refuse unsafe work, the right to know of any hazards or issues that affect the workplace, and the right to identify and participate in the resolution of any health and safety issues arising in the workplace;

viii. Maintain equipment and premises;

ix. Provide training, instruction and supervision;

x. Ensure proper equipment and safety gear is used and used appropriately;

xi. Provide a listing of all chemicals in the workplace; and

xii. If there are at least 20 employees at any one workplace ensure that a Joint Occupational Health and Safety Committee is established. Employee representatives are to be chosen by the employees and should constitute at least 1/2 the membership of the committee, (refer to Appendix H).

Note: Productions in the screen based industry are unlike typical worksites, they tend to be for short duration and the number of employees on site can vary from day to day.

Short duration projects (less than 4 weeks) do not normally require a JOHSC regardless of the number of employees. Since it is likely that a JOHSC may never be established it is highly recommended that a safety representative be appointed regardless of the number of employees. Having a safety representative at all times will ensure that hazards, complaints, recommendations, inspections will be dealt with and the lines of communication between the employer and employees regarding the overall improvement of health and safety will continue.

While there are additional regulatory requirements in the workplace based on the type of work that takes place the following regulatory requirements apply:

i. Provide WHMIS (Workplace Hazardous Materials Information System) if employees handle or work near any controlled products (cleaning agents, gasoline, solvents etc); and

ii. Ensure at least one person on duty is trained in emergency first aid and either a type 1, type 2 or type 3 kit is available as appropriate.

Note: there is also a requirement to send a written notice to the OHS Division of accidents at the workplace:

i. Within 7 days where there has been a fire or accident that has resulted in bodily injury (loss of blood, amputations, breaks, loss of consciousness, etc);

ii. Within 24 hours of any accidental explosion, whether there was any injury or not; and

iii. Within 24 hours where a person (not just an employee) has died, from any cause, in the workplace.

C. Recommendations

1. Where a Call Sheet is used, a Safety Section should be incorporated. Information provided should include, but not be limited to:

   i. Notice of pyrotechnics, hazardous stunts, etc.;

   ii. Identification of Safety Representative or Safety Supervisor;

   iii. Emergency numbers;

   iv. Reference to relevant Health and Safety Guidelines; and

   v. Location of safety and first aid equipment.

   Where a Call Sheet is not used, safety notices should be posted or distributed as appropriate.

2. A copy of the *Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry* should be available on each work site.

3. It is recommended that for shoot days involving complex and potentially hazardous stunts or FX, a Safety Supervisor should be employed.

D. Definition of a Safety Supervisor

1. Hired by the producer on shoot days involving complex and potentially hazardous stunts and SFX, to implement any reasonable safeguards necessary to ensure safe working conditions for the cast and crew;

2. Has been entrusted with the responsibility and the ultimate authority to halt shooting or abort any activity in perceived unsafe conditions until deemed safe;

3. Is knowledgeable of the Occupational Health and Safety Act and Regulations;

4. Is knowledgeable of the Guidelines and Regulations set forth in the *Health and Safety Guidelines for the Nova Scotia Screen Based Production Industry*;

5. Ensures compliance with all safety laws and ordinances;

6. Is a holder of a valid St. John Ambulance Advanced First Aid Certificate, or equivalent;

7. Is responsible for the design, co-ordination and implementation of all safety measures, emergency plans, etc.;

8. Is advisor to the Health and Safety Committee and/or Safety Representative;

9. Files reports of work-related injuries to the producers and appropriate government authorities; and

10. Is trained to deal with the specialized nature of each shoot and/or enlist the aid of qualified personnel (i.e. water, fire-burns, stunts, animals, chemical exposure, etc.).

Guideline No. 2: Procedure for a Work Refusal

If you have reasonable grounds to believe that your work is unhealthy or dangerous to yourself or anyone else at your workplace you may exercise your right to refuse work.

What does "reasonable grounds to believe" mean?

Having "reasonable grounds to believe" means that you have an honest belief that your work will cause you or someone else harm. If this is the case in your situation, you have the right to refuse work. The right to refuse may be used only where you have such reasonable grounds to believe that your work is unhealthy or dangerous to yourself or someone else. The right to refuse is only to resolve concerns and issues related to health and safety.

How do I refuse to do work that I believe is dangerous or unhealthy?

These are the steps you must follow to refuse such work:

1. Immediately report your concern to a supervisor; and

2. Remain at work, but go to a safe place, away from the hazard. [You should not leave the workplace altogether without the permission of the employer (unless the entire workplace is affected i.e. bad air quality, or high noise levels, throughout).]

What happens after I refuse to do the work?

1. If, after reporting your work refusal to your supervisor, the matter is not remedied to your satisfaction, you must report it to your Joint Occupational Health and Safety Committee (JOHSC)/representative, or the OH&S Division of Nova Scotia Labour and Advanced Education, who will investigate your work refusal;

2. Meanwhile, your employer is allowed to re-assign you to other work; and

3. You may accompany an Officer or the JOHSC on a physical inspection of the workplace in relation to the work refusal.

Also be aware that the employer has the right to give the work you have refused to another employee, provided that employee is made aware:

1. Of your refusal to do the work;

2. The reason for the refusal; and

3. That they also have the right to refuse the work if they have reasonable grounds to believe the work is unsafe or unhealthy.

How long can a work refusal continue?

The Occupational Health and Safety Act does not specify a time frame for a work refusal to end. However, you may continue your work refusal until:

1. Your employer has taken remedial action to your satisfaction;

2. The JOHSC has investigated the matter and has unanimously (see explanation below) advised you to return to work; or

3. An OH&S Officer has investigated and has advised you to return to work.

What does "unanimously" mean?

If all JOHSC members find that the subject work is not dangerous or unhealthy, the JOHSC will advise you to return to work. The unanimous decision to advise you to return to work must be made by all members of the JOHSC. If the members of the JOHSC are not unanimous in their decision then the matter must be reported to the OH&S division of Labour and Advanced Education for investigation.

To find out more about Joint Occupational Health & Safety Committees (JOHSC) refer to Appendix H.

Will I lose wages during my work refusal?

When a work refusal is based on a reasonable belief, the law is intended to protect an employee's wages, salary, and benefits during the period required to resolve a work refusal. When the employer does not reassign the employee to other work or does not pay the employee for the period the employee can file a discriminatory action complaint. Your employer cannot take, or threaten to take, discriminatory action against you because you have refused to do work that you believe to be dangerous or unhealthy. If a dispute arises, you may claim lost pay through a complaint of discriminatory action. For more information, refer to the "Employee Discriminatory Action Complaint" form #503, which can be found on the Department of Labour and Advanced Education's website at http://www.gov.ns.ca/lae/permits/.

Note: Work refusals are considered a high priority when reported to the OHS Division. An investigation into the work refusal may take place on the same day it is reported.

To find out more about your right to refuse work, see Sections 43 and 44 of the *Occupational Health and Safety Act*.

Guideline No. 3: First Aid

1. Every person shall take every precaution that is reasonable in the circumstances to protect their own health and safety and that of all other persons at or near the workplace and others who may be affected by their undertaking.

2. At least one person on each set or location (including prep work) shall be identified as a First Aid Attendant. The First Aid Attendant shall be assigned to work in the immediate vicinity and have charge of the first aid kit. The First Aid Attendant must be available at all times to treat an injured person without undue delay.

3. The First Aid Certificate of a First Aid Attendant shall be posted at the workplace.

4. Anyone who sustains an injury at a workplace should, without undue delay, use the first aid services and supplies provided by the Producer.

5. Where first aid is administered to an injured person in the workplace, a written record shall be maintained of:

    i. The name of the injured person;

    ii. The date and time of the injury;

    iii. The location and nature of the injuries;

    iv. The time when first aid was administered;

    v. The first aid treatment provided;

    vi. The name of the person who provided the first aid; and

    vii. The name of the person to whom the injury was reported.

6. The production company, at its expense, shall ensure that the first aid supplies and services required by the Regulations are provided, supplied, maintained and readily accessible to the employees during all work hours. (refer to Appendix A)

7. The Regulations outline several requirements regarding first aid kits. The size of the kit, i.e. the amount of supplies, is again based on the number of employees per shift. Kits are numbered 1 (1 employee) 2 (1 to 20) and 3 (20 to 50). For workplaces of more than 50 employees increase the supply of dressings, bandages and antiseptics proportionate to the number employees over of 50; for example, for 75 employees, multiply numbers in # 3 kit by 1 ½ (75/50)times. For non-office workplaces with 100 or more employees per shift a first aid room (a room exclusively used for first aid) will be required.

    Note: purchasing the kits pre-made is a convenience; the Regulations do not require you to purchase these. You may choose to make up your own kits as long as they have the required supplies as outlined in the Regulations.

8. Prior to the commencement of any work, the Production Manager, in consultation with the Location Manager, should submit to the Producer for approval a resume of the first aid facilities to be provided which should include:

i. The number of employees and description of the operations to be undertaken;

ii. A description of the first aid facilities;

iii. The planned methods of emergency transportation;

iv. The methods of two-way communication available; and

v. The qualifications of the First Aid Attendant or nurse or both.

9. Where an employee is engaged in pre-production work at a location, the Production Manager, with the assistance of the Location Manager, should provide the Heads of Departments with a list of emergency contacts and the planned method of emergency transportation, and shall provide a suitable first aid kit at each location. (refer to Appendix A)

   Where an employee is engaged in pre-production work at a remote location, two way communications should be ensured.

   "Remote location" is defined as a place more than 30 minutes away by means of surface transportation from the nearest health care facility that provides emergency services.

10. When Stunts, FX, Fire and Underwater work etc. are scheduled, a medical provider (e.g. Paramedics) should be standing by on set to administer medical treatment.

11. The Call Sheet should identify the location of the first aid kit and the designated Safety Representative, Safety Supervisor and/or First Aid Attendant.

First Aid Training

Emergency first aid training is required at any workplace where:

- a full time employee regularly works alone;
- where no one can give first aid; and
- where an employee is unable to call for assistance in a reasonable time under provincial jurisdiction.

At least one person (per shift) trained in emergency first aid for a non-office workplace of more than 1 and less than 20 employees (per shift),

At least one person (per shift) trained in standard first aid for a non-office workplace of 20 or more but less than 100 employees (per shift),

At least one person (per shift) trained in advanced first aid for a non-office workplace of 100 or more employees.

Note: first aid training must be given by an organization (individual) approved to deliver first aid courses and issue certificates.

DEPARTMENTAL SAFETY

Guideline No. 4: Carpentry/Woodworking

1. Accident Prevention

    i. Be aware of and follow all municipal, provincial and federal codes, ordinances and Regulations.

    ii. Inspect all equipment before using.

    iii. Keep all equipment in good repair.

    iv. DO NOT REMOVE safety shields or other safety devices.

    v. Wear and use approved protective equipment at all times.

    vi. Remove rings, avoid watches and loose clothing, and suitably confine long hair.

    vii. Inspect work area for unsafe conditions, and remedy before beginning work.

    viii. Keep work areas in a clean and sanitary condition.

2. Hand Tools

    i. Keep all hand tools clean, sharp and in good repair.

    ii. Use all hand tools for the purpose for which they were intended (e.g. a screwdriver is not a chisel and vice-versa).

    iii. Do not carry sharp or pointed objects in pockets.

3. Power Tools

    i. Make all adjustments and tighten all locking devices before attaching tool to power supply.

    ii. Make sure tool is switched off before connecting to power supply.

    iii. Use grounded extension cords, grounded outlets and/or a Ground Fault Circuit Interrupter.

    iv. Operate all tools with all safety guards in place.

    v. Use the fence or guide, push-stick, etc.

    vi. Maintain an appropriate safety margin between cutting edge and hands.

    vii. Keep blades, bits and related tools sharp.

    viii. Keep the tool and surrounding area free of debris.

ix. Follow manufacturer's maintenance instructions.

x. Handle all air-actuated devices with extreme caution.

4. Explosive-actuated Fastening Tools

i. The most important factor in achieving safe, satisfactory use of explosive-actuated fastening systems is operator training. Only trained and competent operators shall use explosive-actuated tools.

ii. All operators shall wear eye and ear protection.

iii. The latest edition of the ANSI A 10.3195 and any addition or amendment thereto shall be used as a guide for the safe operation and maintenance of explosive-actuated tools.

5. Rope

i. Keep the load within the safe limits of the working strength of the rope. A safety factor of five-to-one is generally used for new rope, eight-to-one for old rope, ten-to-one for rigging.

ii. Thread rope in sheaves or pulleys correctly. Never use a smaller pulley or sheave than is recommended for the size of rope being used.

iii. Avoid excessive knots (which can reduce strength of rope up to 50%).

iv. Reverse rope ends in any tackle periodically so that all sections of it will receive equal wear.

v. Never replace a shackle pin with a bolt.

vi. Hooks on bridles should point out (away from centre of pull).

vii. The angle between two bridle legs must not exceed 120 degrees.

viii. All rigging materials must be used in accordance with manufacturers specifications and limits.

ix. Do not lift with tip of hook.

x. Do not force hook.

xi. Balance loads to be hoisted. Use tag lines wherever possible.

xii. Wear approved protective equipment, such as hard hats, gloves, safety boots, and eye protection.

Guideline No. 5: Rigging

Rigging Hardware

A device used to attach a load to a hoist is referred to as rigging hardware. Examples of rigging hardware include a chain, cable, webbing, bucket, grapple, hook, ring, sling or other means. The lifting capacity of any rigging hardware must be permanently identified on it. Before a load can be lifted, a person trained in the capacity of the rigging hardware must ensure the load is secure.

Employers shall ensure that rigging hardware is constructed, installed, operated, inspected and maintained in accordance with the applicable ASME standard:

- ASME B30.9-2006, "Slings";
- ASME B30.10-1993, "Hooks"; or
- ASME B30.20-1999, "Below-the- Hook Lifting Devices".

Where none of the standards noted apply an employer shall ensure that the rigging hardware complies with an adequate design certified by an engineer.

Rigging hardware must be inspected, by a competent person, before it is put into initial service or after a month or more of disuse and once during every year it is in operation. Records of inspection and repairs must be kept. The record must include the date, time, nature and results of the inspection or repair and the name of the person who performed the inspection or repair.

Note: The Nova Scotia Occupational Safety General Regulations do not require employees who work with rigging to have a particular certification, however it is highly recommended that anyone working within the industry obtain ETCP certification, see below.

ETCP Certification

The Entertainment Technician Certification Program (ETCP) is an industry-wide program that has brought together an unprecedented group of industry organizations, businesses and individuals to create a program of rigorous assessments for professional technicians. ETCP focuses on disciplines that directly affect the health and safety of crews, performers, and audiences. You may become certified through ETCP in the following areas: **Rigger – Arena**, **Rigger – Theatre**, and **Entertainment Electrician**

Personnel certification is the voluntary process by which a nongovernmental organization grants recognition to an individual who has demonstrated certain abilities, skills and knowledge. ETCP encompasses the creation of exams based upon identified bodies of knowledge, the conducting of those examinations, the awarding of certifications, and re-certifying individuals.

PLASA runs ETCP, which was originally developed by ESTA. The following organizations maintain seats on the ETCP Council: ACTSAFE, Alliance of Motion Picture and Television Producers (AMPTP), Canadian Institute for Theatre Technology (CITT), InfoComm International, International Alliance of Theatrical Stage Employees (IATSE), International Association of Venue Managers (IAVM), The League of American Theatres and Producers, Themed Entertainment Association (TEA), and United States Institute for Theatre Technology (USITT).

Guideline No. 6: Ladders and Scaffolding

Erection, dismantling and/or working on any elevated platform are activities subject to certain hazards that cannot always be protected against by mechanical means - - but only by the exercise of intelligence, care and common sense. It is therefore essential to be competent, careful, and trained, as well as physically and mentally fit, in order to operate safely on these types of equipment.

A. Ladders

A portable ladder must be able to withstand 4 times the likely load to be imposed, is clean and free of grease, oil or other substance that may cause slipping, is maintained and is inspected before each use to ensure the ladder is in adequate condition. Note: the Fall Protection and Scaffolding Regulations also deal with working with ladders and may be considered where they apply. Class 3 ladders are intended for home use only and cannot be used at the workplace.

A manufactured portable ladder must meet CSA Standard CAN 3-Z11 M81. Any ladder meeting the CSA standard will have a marking indicating the manufacturer's name or trademark, when it was manufactured, its length and maximum extended length (where applicable), and the grade. It would also have a series of safety cautions, such as "Do Not Over Reach" on it.

A portable ladder must maintain an adequate overlap between the sections of the ladder and the locks must be engaged before a person climbs the ladder, if the ladder is extendable. The ladder should also be placed on firm footing and secured against movement. Also a ladder must be non-conductive, if there is a risk of contact with live electrical conductors. If a ladder is to be used as a step ladder, has legs securely held in position by means of a metal bracer or equivalent support.

When using a ladder the person must face the ladder when climbing up or down, use 3 points of contact when more then 1m above a safe surface, stand in the centre of the ladder, not stand on the material shelf, or the top step of the ladder, if the ladder is a step ladder and not work from the top 3 rungs of the ladder, if the ladder is not a step ladder. A ladder must be removed from service if it has any loose, broken or missing rung, split side rails or any other defects. When using a straight or extension ladder, follow the 4 to 1 rule: For every 4 m the ladder raises, place the bottom of the ladder 1 m away from the wall.

B. Scaffolding

1. Where work cannot be safely done on or from the ground, a scaffold or other safe means of support shall be provided. The installation, use or removal of a scaffold shall be supervised by a competent person designated by the producer, employing approved techniques and procedures including, but not limited to, the following:

    i. The erection and dismantling of scaffold shall be supervised by a competent person. Also, every scaffold is to be inspected by a competent person each day prior to use. The inspection is for defects (damage, deterioration or loosening) that may affect its strength. If any of these are found the scaffold is not to be used until it is repaired or replaced;

ii. Erect on firm foundation or utilize mudsills to prevent unsafe settlement – use screw jacks, not blocking (apple box, 2 x 4's, wedges, etc.) to adjust to uneven grades. Do not extend screw jacks more than the supplier's recommendation;

iii. Scaffolding must be braced diagonally in the vertical and horizontal planes to prevent lateral movement and the vertical supports can be no greater than 3 m apart. Fasten all braces securely and do not climb on braces;

iv. Working platform height shall not exceed three times the smallest base dimension without securing. If the scaffold cannot be secured to a building then outriggers may be used. A scaffold shall be secured every 15 feet vertically and every 21 feet horizontally;

v. No scaffold shall be loaded in excess of its rated capacity or used to support a ladder or other structure or device for the purpose of increasing the scaffold's working height or area;

vi. Working platforms shall be a minimum of 458 mm/18 inches in width, securely fastened in place, designed to withstand at least four times the maximum load, constructed of wooden planks or commercially manufactured;

vii. Every scaffold must be capable of supporting at least four times the maximum total load that is likely to carry including: persons, equipment, material etc. Scaffolding must have a safe means of entering and leaving (access and egress) and must have fittings and gear that comply with the manufacturer's specifications or a professional engineer's design;

viii. No person or unsecured equipment shall remain on a rolling scaffold while the scaffold is being moved. A rolling scaffold shall be equipped with suitable braking and locking devices and a mechanism that, when applied, secures the wheels of the scaffold. In addition, rolling scaffolds must be assembled with horizontal cross-bracing starting at the base and at 4.6 m vertical intervals and from component that are designed by the manufacturer or a professional engineer, during assembly;

ix. A guardrail is recommended for any scaffold of any height. A guardrail (including top rail, mid-rail and toe board) shall be provided on the open sides and ends of a scaffold that is ten (10) or more feet (two or more sections) above the ground or other safe walking surface. When guardrails cannot be installed on the scaffold, use appropriate fall protection equipment, (refer to Guideline No.6). Appropriate fall protection must be used during the erection and dismantling of the scaffold;

x. Electrical cords, ropes, hoses, etc. should be checked for adequate clearances and length prior to hoisting or moving;

xi. When hanging large areas of material (drapes, tarpaulins, silks, etc.) from a scaffold or other elevating device, additional adequate securing shall be provided and the design must be certified by an engineer, as outlined in CSA Z797, "Code of Practice for Assess Scaffolding";

xii. In windy or gusty conditions, the designated supervisor should remove personnel, equipment, or both, from the scaffold and/or area, to reduce any risk from capsizing; and

xiii. Where work is being performed on a scaffold above a work area to which access is not restricted, persons below shall be protected from the hazard of objects falling from the scaffold by overhead protection or tying of tools and other unsecured objects.

2. In some cases, the design of the scaffold used at the site must be certified by a professional engineer, such as when the scaffold is wooden, pumpjack or suspended. See the applicable Regulations for additional information.

C. Fall Protection Equipment

Fall protection must be used when working at heights of 3 m (10 ft.) or more, or when a fall from a height of less than 3 m (10 ft.) carries an unusual risk of injury.

Fall protection equipment maybe used:

1. During set construction;

2. When erecting or dismantling scaffolds;

3. When working on elevated platforms (including scaffolds that lack guardrails);

4. When working at elevated locations such as on roofs or cliffs, or in pits, wells, or mine shafts; or

5. During stunts and other filming activities.

The different types of fall protection include wearing a fall arrest system, a guardrail, a personnel safety net, temporary flooring or some other means that provides a level of safety equal to or greater than a fall arrest system.

Train employees

Before allowing cast or crew into an area where a potential falling hazard exists, the supervisor must ensure that employees have been trained in the fall protection system being used for that area and that employees understand the procedures they need to follow. Keep training records.

Fall restraint systems

Whenever possible, use a fall restraint system to prevent employees from getting into a situation in which they can fall. Guardrails are the preferred type of fall restraint. If guardrails are not practicable, each worker can use a safety belt or harness attached to a securely anchored lanyard. The lanyard limits the distance that the worker can move and prevents the worker from getting too close to an edge.

Fall arrest systems

If a fall restraint system is not practicable, use a fall arrest system instead. A fall arrest system will not prevent a fall from occurring in the first place, but it will stop a worker's fall after a short distance, preventing the worker from hitting the surface below. When using a fall arrest system, the worker must wear a safety harness attached to a securely anchored lanyard that will limit the fall to a safe distance. Safety harnesses are specially designed to help protect the worker against internal injuries if a fall occurs — do not use safety belts in fall arrest systems. If a fall arrest system is not practicable, suspend a safety net below the work activity. You may also need to set up a control zone and a safety monitoring system. All components of the Fall Arrest System must comply with the applicable CSA standard. When fall arrest systems are used it is strongly recommended that a rescue plan be put in place.

Inspect fall protection equipment

Each component of a fall arrest system, including each lifeline, shall be inspected by a competent person prior to each use to determine whether there are any defective, or otherwise unsafe components and if a defect is observed, no person shall use or permit the use of the system until the defective components are replaced or repaired.

Maintain and store fall protection equipment safely

To keep all fall protection equipment in good working order, take the following steps:

1. Remove defective parts from service immediately;

2. After a fall protection system has arrested a worker's fall, remove it from service and have it inspected and re-certified by the manufacturer or a professional engineer;

3. Keep safety belts, harnesses, lanyards, lifelines, connecting hardware, anchors, and other fall protection devices free from dirt, grease, chemicals, ultraviolet (UV) rays, and other conditions that could contribute to their deterioration; and

4. Store fall protection equipment in a box or locker away from sharp tools, equipment, and other objects that may damage the fall protection equipment.

Guideline No. 7: Camera Cranes and Mobile Elevating Work Platforms

A. Camera Cranes

1. The Key or Dolly Grip should be consulted as to the adequacy of any specific equipment for a particular sequence or shot. The Key or Dolly Grip should ensure that any equipment has been inspected by a competent person within twelve months prior to its use. Only trained crew members should operate cranes. Cranes must be operated as per manufacturer's specifications and keep the operator's manual on site.

2. Preparation of both the equipment and its support surface should be made by the designated operator. The crane base and pedestal should always be leveled and plumbed before it is used.

3. Under no circumstances should any person or equipment be added to or removed from a crane without the permission of the designated operator. No one shall pass under either arm of a crane without advance permission from the designated operator.

4. A crane should not be left unattended while being prepared for use or while in use.

5. The following precautions should always be taken when using a crane:

    i. incomplete or damaged equipment shall never be used;

    ii. no crane shall be used closer than the following distances from power lines:
    750 – 69,000 volts - 3 meters/10 feet;
    Greater than 69,000 volts and up to 138,000 volts - 5 meters 15 feet; or
    Greater than 138,000 volts - 6 meters 20 feet.

6. When using a crane close to any overhead obstructions, or mounted on moving vehicles, adequate clearances should be maintained at all times, taking special care with all personnel involved in its use.

7. When using a crane on unstable surfaces, such as sand, a crane should be blocked in a way to prevent collapse if the surface shifts. This also applies to laying any supports or track over a change in surface (such as sand to rock) or a change in grade.

8. Any riser used to raise a crane should be able to support the weight of the crane and the personnel using it. It should also be adequately braced against collapse, taking the surface conditions into account.

9. Tracking surfaces should be properly laid and constructed in accordance with Suppliers' and/or Manufacturers' recommendations.

10. The crane arm should never be left unbalanced. If uncoated lead ingots are being used as weights, work gloves should be worn by any employees handling them.

11. The designated operator should ensure that persons riding the crane use seats and safety belts.

B. Mobile Elevating Work Platforms

This guideline encompasses devices such as scissor-lifts, aerial extendable boom platforms, bucket-trucks, cherry pickers, etc. These Guidelines do not replace other additional safety and precautionary measures recommended by the manufacturer or Department of Labour and Advanced Education Regulations to cover usual or unusual conditions. All power operated elevating work platforms shall be designed, constructed, erected, maintained, inspected, monitored and used in accordance with the applicable CSA standard.

1. Mobile elevating devices shall be operated and supervised by a competent person designated by the Producer.

2. Equipment should be inspected prior to its operation for satisfactory condition, damage, and defects, including all operational controls. A legible operator's manual should be provided with the equipment.

3. Operators shall, in considering the job to be performed, evaluate the job site location for potential hazards, stability, etc. Wheel locks shall be used on inclined surfaces. Outriggers or stabilizers must be used in accordance with Manufacturer's specifications.

4. The basket, tub or platform shall not be loaded or operated beyond its rated maximum height or reach.

5. Equipment shall not be operated within 3 meters (10 feet) of a power line. The operation of aerial devices OVER energized high voltage sources OF ANY KIND is prohibited AT ALL TIMES.

6. Approved harnesses with lanyard, shall be worn when working on these platforms:

    i. The lanyard shall be securely attached to the boom, basket tub or platform;

    ii. The lanyard shall be attached in a manner that prevents a free fall of more than 1.2 meters (3 feet) unless equipped with shock absorbing system;

    iii. Tying off to an adjacent pole, structure or equipment while working from the basket, tub or platform is not permitted; and

    iv. Objects or production equipment with the potential of falling from an aerial platform shall be secured with an adequate safety lanyard.

7. Ladders, planks or other objects shall not be placed in or on top of the platform or guardrail to gain greater height. Personnel shall not sit or climb on the edge of the basket/platform.

8. Personnel shall not work from aerial platforms when:

    i. Exposed to extreme weather conditions (thunder storms, heavy rain, extreme heat or cold) unless provisions have been made to ensure their protection and/or safety;

    ii. Winds exceed 40km per hour;

9. "Towering" (traveling with a worker in the extended basket) is not permitted;

10. Any mobile elevating device left unattended by its designated operator must be lowered and locked or rendered inoperative to prevent the device from being started or set in motion by an unauthorized person; or

11. There should be suitable means of communication between persons on these platforms and those operating the platforms on the ground.

Guideline No. 8: Electrical Safety

A. Installation and General Information

1. An experienced and competent person shall tie-in to all electrical distribution systems.

2. Only experienced and competent persons shall be authorized to do any work on any energized electrical lines or equipment.

3. Electrical installations must be installed, assembled, operated, inspected, serviced, tested, maintained, repaired and dismantled in accordance with the most recent edition of the applicable CSA standard.

4. Appropriate proper non-conducting protective equipment, such as rubber-soled shoes, rubber gloves, and mats shall be worn/used when tying in and during conditions of high humidity. When work is required on an energized system, the employer must provide all the required protective equipment and devices and ensure that they comply with the applicable standard. Refer to Section 123 of the Nova Scotia Occupational Safety General Regulations.

5. The power supply shall be disconnected, locked out of service and tagged before any work is done on electrical installations or equipment and also when people are working near exposed live parts of electrical installations or equipment.

6. No work should be carried out that will bring a person or object closer than the distances set out in the following table to an overhead power line or power line equipment:
   750 volts and up to 69 000 volts - 3.0 m;
   greater than 69 000 volts and up to 138 000 volts 5.0 m; or
   greater than 138 000 volts - 6.0 m

7. Connectors and cable shall be provided with standard colour coding:
   Red, Blue, Black – Line;
   White – Neutral; and
   Green – Ground.

8. When there is a hazard from electrical contact in wet locations, a Ground Fault Circuit Interrupter shall be installed at the receptacle, or in the circuit at the panel.

9. Temporary leads exiting a distribution panel shall be secured so that the weight of any cables does not put a strain on any electrical connector.

10. All power feeds shall be protected from mechanical damage. In high traffic areas, cables shall be laid in rubber troughs or shall be covered.

B. Electrical Department Personnel

1. Complete control of any electrical activity during production – including the authority to abort – should be given to a competent Gaffer/Lighting Director. The Gaffer/Lighting Director and/or Best Boy are responsible for, and are in charge of, all temporary power distribution systems for screen based productions. They must be consulted prior to the use of any electrical system, including all on-set practical's.

2. The electrical department should have an emergency lighting system available to adequately light an escape route in the event of a blackout.

3. All electrical personnel shall be aware of the load bearing capacity of each type of cable, adaptor, or distribution box in use on the set.

4. All personnel shall be made aware of high voltages used by gas discharge lamps such as neon, HMI's, CSI's and fluorescent. Anyone using these sources shall be familiar with the ballasts used and ensure that any related safety devices are in proper working order.

5. All personnel shall be advised that various "arc" type lamps including HMI's emit much larger amounts of ultraviolet (UV) light than tungsten lamps. Care shall be taken to protect against skin and eye damage when these instruments are set up close to people and animals.

6. In addition to protective footwear, protective equipment (including gloves, protective glasses, etc.) shall be worn when carrying, handling or moving hot luminaries. Bulbs shall be allowed to cool sufficiently before the luminaries are moved.

7. In damp or rainy conditions, make sure that all persons are clear of the lamphead as humid conditions increase the conductivity of the air, and thus the likelihood of "arcing".

8. Prior to "striking" an HMI or similar source, the operator(s) shall ensure that no one is in contact with the unit, its support, or its ballast.

9. Correct procedures should be exercised when performing lifting, lowering, carrying, pushing and pulling. (refer to Appendix C: Bio-Mechanics of Lifting)

10. Before a lighting fixture is re-lamped, repaired or otherwise worked on, the fixture shall be switched off and disconnected from the power source.

C. Electrical Equipment

1. The Gaffer/Lighting Director shall maintain a logbook of major equipment repairs performed on-set.

2. Any equipment, cable or box that has been repaired on-set, shall be carefully tested for continuity and polarity before being re-used. Rental equipment that has been repaired on-set shall have the details of repair noted on the equipment so that the rental company can verify that the repair has been properly completed.

3. All electrical equipment connected to a power source shall be approved by an acceptable Certification Agency, or be field inspected and approved by such Agency.

4. Scaffolds or other metal grids used to support lighting or power distribution devices shall be grounded.

5. All lighting fixtures and/or stands shall be adequately supported and weighted etc. to prevent tipping.

6. Safety wire or chain shall be used with all suspended fixtures.

7. Both the ballast and head of HMI's (or similar sources) must be grounded.

8. In the event of rain or high humidity, all HMI's or similar units shall be covered to prevent rain from entering the unit and ballast.

D. Generator Sources

1. All generators shall be operated and maintained by a competent person.

2. Generators shall be grounded and shall have an emergency stop system.

3. Only a competent person shall supervise the generator at all times while it is running, and shall be available to activate the emergency stop system.

4. A competent person shall analyze the existing loads on a distribution panel and determine the excess capacity that may be used for the temporary load before connecting a temporary power distribution system to the panel.

5. A competent person shall notify other users of power from the same panel that their loads may be disconnected if the main breaker feeding the panel is "tripped" under overload conditions.

6. A competent person shall determine which loads will potentially create a safety hazard if shut down, and shall take suitable precautionary actions.

7. Generators shall only be started under no load conditions and, unless under an emergency condition, stopped under no load conditions.

E. Lasers

1. Lasers shall be operated by a competent person.

2. Eye damage will result from looking directly into a laser source.

3. Laser beams can reflect off certain objects.

4. Consult laser technician for additional, possible hazards.

For information regarding erecting, dismantling, ascending and working on the following devices, refer to Guideline 6: LADDERS AND SCAFFOLDING; and Guideline 7: CAMERA CRANES AND MOBILE ELEVATING WORK PLATFORMS.

Guideline No. 9: Hair and Make-up

A. Responsibilities

1. A "Hairstylist" is a person who meets the qualifications of the Nova Scotia Hairdressers Association or equivalent.

2. The Hairstylist and Make-up Artist shall make every effort to inform the Performer of toxicity and possible health hazards that may be associated with their materials.

3. The Make-up/Hairstylist should check with the Performer regarding all known sensitivities, allergies, skin reactions, etc.

4. It is the duty and responsibility of the Performer to inform the Hairstylist/Makeup Artist of all known sensitivities, allergies, skin reactions, communicable diseases, etc.

B. The Facility

1. The hair and make-up room should:

    i. Be clean;

    ii. Be maintained at a reasonable temperature;

    iii. Be well ventilated;

    iv. Have adequate lighting;

    v. Provide a first aid kit with eye-washing bottles. The eye-wash bottles should be kept free of dirt and bacteria and completely refilled after each use; and

    vi. Provide a hydraulic chair where possible (the importance of this requirement increases in direct relation to the duration of the production).

C. Hygiene

1. Hygienic safety requires the following practices:

    i. Hot and cold running water is essential;

    ii. Hands or gloves must be washed before and after attending each performer;

    iii. Each performer must have individual sponges, powder puffs, combs and brushes. When transported, these should be in a labeled zip-lock plastic bag or equivalent;

    iv. Containers, razors, scissors, tweezers and spatulas must be disinfected before and after each use;

    v. Disinfect hairstyling combs and brushes with BarbercideTM (or equivalent); clean with soap; rinse with water;

vi. Keep all equipment clean and ready for use;

vii. Use one mascara per person to prevent the spread of infection;

viii. Use spatula to remove make-up from compact. Mix on artist's tray, then apply; and

ix. Update and replace old and stale make-up and hair productions regularly.

D. Chemical Guidelines

1. The following recommendations apply when hair/make-up chemicals are used during production:

   i. Maintain an inventory of products used;

   ii. Research the ingredients of these products to identify any potential health hazards;

   iii. Clearly label all chemicals;

   iv. Have Material Safety Data Sheets (MSDS) for each toxic chemical to be used;

   v. When involved in potentially hazardous activities –such as the application of colours or hair sprays, or the mixing of powder bleaches and oxidizing chemicals – appropriate protective equipment such as face masks, goggles, gloves, etc. should be worn;

   vi. Wherever possible, use non-aerosol hair sprays;

   vii. Wherever possible, use pre-mixed powders;

   viii. Wherever possible, use non-solvent materials such as Isopropyl Myristate for removing special effects make-up; and

   ix. No eating, drinking, or smoking while chemicals are being handled.

E. Fire-retardant wigs and gel

When working with stunt performers who will be in close proximity to fire and using a wig the hairstylist shall make sure that the wig is attached in a way that the performer can take the wig off quickly. Also, a fire-retardant gel should be used on the wig or on the performers own hair. The stylist should contact the performer before each stunt to determine who is supplying the gel.

Guideline No. 10: Hazardous Products

1. Hazardous Products include, but are not limited to, paints, glues, solvents, stains, etc. When handling hazardous products on any film set or location, consideration shall be given to:

    i. The hazards and risks posed by the chemicals;

    ii. The regulatory requirements set out in the Federal *Hazardous Products Act* and both the Federal *Controlled Products Regulations* and Nova Scotia *Workplace Hazardous Materials Information System* (WHMIS) Regulations.

    iii. The concentration limits published in the booklet *Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*.

2. Wherever possible, hazardous chemicals shall be replaced by less hazardous ones (e.g. Latex-based contact cement shall replace Toluene-based contact cement, Latex-based paint shall replace Oil-based paint, Fibreglass or Silica shall replace Asbestos).

3. Before any controlled product is brought on site, the Head of the Department shall ensure that:

    i. A current Material Safety Data Sheet (MSDS) is available to all employees who may use or be affected by the product (when such a sheet is available);

    ii. All containers of the product have appropriate labels when they are brought on site;

    iii. Any employees who will be handling the product receive adequate training in its proper use and handling, and that any required personal protective equipment is provided; and

    iv. Any employees who work in proximity to the product receive adequate training to allow them to react properly in case of an accidental release or chemical spillage.

4. The Head of the Department and the user of the product shall ensure that proper workplace labels are applied where appropriate, particularly when "decanting" (transferring chemicals from large containers to small containers).

5. When not in use, all hazardous products shall be stored in a secure location. This location shall be designated with due regard to the separation of incompatible products.

6. When taking measures to minimize risk, the following preference scale shall be used:

    i. Substituting a less hazardous product;

    ii. Ventilation;

    iii. Administrative control (i.e.: rotating personnel); and

    iv. Personal protective equipment.

7. Where the use of a product requires any worker to use any type of protective equipment:

    i. The Head of the Department should verify that any equipment used is appropriate to the hazard, and

    ii. The individual using such equipment shall be trained in its operation, including its normal use, its limitations, and any emergency procedures.

8. When exposure to children is possible, the Threshold Limit Values shall be reduced by 90%. Extra caution should be taken in storage and labeling.

9. Eating and drinking shall be banned in any area where hazardous chemicals are used or stored.

LOCATION SAFETY ON LAND

Guideline No. 11: Locations and Temporary Location Facilities

A. Winnies/Honeywagons/Temporary Wardrobe Units

1. The Driver/Operator is responsible for maintaining a high degree of safety while these units are in use, and is expected to meet high standards of competency. A qualified person should be present while such units are in operation.

2. Generator exhausts shall be elevated a minimum of three feet above the floor level and vented to the outside at all times.

3. Skirting encircling the unit shall not be closer than one foot from the ground.

4. All portable electric heaters shall be equipped with safety tip-over switches. Such heaters may be installed only on a temporary basis during extremely cold weather, or if the permanently installed heater malfunctions.

5. The vehicle and/or generator shall be shut down before fueling. Particular caution should be exercised when priming a carburetor. Fueling shall be done in a safe manner consistent with all Federal and Provincial Fire Codes.

6. No anti-freeze shall be added to the portable water tanks.

7. All steps shall be stable, slip proof and constructed securely. All steps shall be cleared of ice, snow and mud as required. Substitutes (e.g. concrete blocks, boxes) shall not be used as steps.

8. A single handrail or grab bar shall be installed on stairs where the floor is over three feet high.

B. Location Requirements

1. Adequate flush or chemical toilets shall be provided or made available for the use of employees (crew, cast and extras) within easy access of their place of work.

2. An adequate supply of safe drinking water shall be kept readily accessible for employees (crew, cast, extras, etc.).

3. Holding areas should be properly heated or ventilated with suitable emergency escapes and seating capacity.

4. Cast and crew exposed to long hours in adverse exterior conditions (heat or cold stress) should be provided with appropriate items to combat such conditions (i.e.: temporary shelter, temporary heating devices, hot shots, hot drinks, blankets, adequate fluids, etc.) (refer to Appendix D).

5. On location and on remote location, two-way communication should be maintained at all times. An emergency plan should be in place.

C. Use of Roads and Highways

1. All activities on roadways within Nova Scotia shall comply with the *Temporary Workplace Traffic Control Regulations*. Principles and procedures within the Regulations enhance the safety of motorists and employees.

2. A traffic control plan shall be developed by the Production Manager and/or Location Manager prior to work start. Plans should be communicated to affected personnel before implementation.

3. Highway and street traffic movement shall be inhibited as little as possible.

4. Traffic shall be guided by accredited Signal Persons.

5. Routine monitoring of the traffic control plan shall be performed to ensure that the applicable Regulations are being complied with under varying conditions (e.g.: traffic patterns, weather conditions, traffic volume, available light, topography, oncoming drivers' field of vision, etc.).

6. Whenever possible, the applicable jurisdiction shall be consulted concerning street closures.

7. Trained persons should be assigned to direct Unit moves between locations.

8. As Units enter or leave a street or highway, signage appropriate to the conditions (e.g. traffic patterns, weather conditions, traffic volume, available light, landscape, on-coming drivers' fields of vision, etc.) shall be used.

REFERENCES:

- Nova Scotia Department of Labour and Advanced Education, Temporary Workplace Traffic Control Regulations, and Occupational Health and Safety Regulations
- Nova Scotia Department of Transportation and Public Works

LOCATION SAFETY ON WATER

Guideline No. 12: Water Locations – Small Craft/Vessels and at Dockside

The following procedures are recommended for all work at dockside, aboard certified ships or small craft, for transfers between vessels/small craft, in and over the water. As a general consideration, all persons working in these situations need to be prepared for the possibility of accidentally entering the water. Extra precautions are necessary to protect against this potentially hostile environment. The greatest dangers are drowning and hypothermia. Most victims who drown prior to suffering the effects of hypothermia do so within six minutes of immersion (refer to Appendices B and D).

Whenever there is a risk of drowning, personal flotation devices, that comply with CGSB standard CAN/CGSB-65.11-M88, must be worn.

A. At Dockside

1. High visibility clothing should be worn by all persons working on a dock. This is especially important if the dock is accommodating other work while filming is underway, or if heavy equipment is operating on the dock.

2. Only competent and experienced persons shall operate equipment supplied at dockside, including outlets for steam, water or power. Crane operators shall possess appropriate Stationary Engineer's Certificate.

3. A spotter should accompany the camera operator at all times while filming on a dock.

B. Aboard Certified Vessels

1. The Ship's Master shall be the final authority in all matters concerning safety provisions and procedures for all persons, and for the safe operation of the ship. The Ship's Master is responsible to ensure that all conditions required by Transport Canada are met such as certifications, first aid, crew size, tonnage, etc.

2. In the event of adverse weather conditions, the Ship's Master shall be the final authority on whether the ship will sail, or, if at sea, whether the ship shall immediately return to port.

3. Before departure, all persons aboard should be thoroughly briefed about the location of safety equipment, its use, and procedures to be followed in the event of a person overboard or any threat to the integrity of the ship. Sufficient time for this briefing should be provided in the production schedule so that all persons may be present and not otherwise engaged in preparation or loading while the briefing is taking place.

4. A designated person should be in possession of equipment capable of providing two-way communication with the shore at any time while at sea. This person should be identified on the Daily Call Sheet.

5. Non-slip footwear should be worn by all production personnel. Outer apparel should be unencumbered by items that could catch, such as belts, straps, etc. If kit/tool/battery belts need to be worn, they should not limit the free movement of the person while

boarding, aboard, or departing the ship. It is important to consider the weight of these items when choosing flotation gear, as they may impair the flotation effect.

6. A spotter should accompany the camera operator at all times while filming on a ship.

7. Before a temporary structure aboard a ship is used by any employee, a competent person shall make an inspection of the structure. Where the inspection reveals a defect or condition that adversely affects the structural integrity of a temporary structure, no person shall use it until the defect or condition is remedied.

8. No person shall work on a temporary structure on a ship in rain, snow, hail or an electrical or wind storm that is likely to be hazardous to his/her safety or health, except where the work is required to remove a hazard, to rescue a person, or to protect the safety of the ship.

9. While any filming is underway aboard a ship, a second motorboat shall be in the immediate vicinity as a safety boat. On board the safety boat there must be a life buoy, a boat hook and an audible alarm system to notify of an accident and to initiate the rescue procedure. The life buoy must have a rope that is at least 15 m in length and at least 10 mm in diameter. At least one person aboard the safety boat should be qualified for life saving at sea. The safety boat shall be in two-way communication with the ship/craft, shall have the capacity to accommodate its own crew plus the number of persons it is providing protection for, and be able to return to shore under its own power.

C. Aboard Small Craft

1. Only the minimum number of people required should be in a small craft. The total number of people aboard shall never exceed the Safety Rating for the craft.

2. If a small craft is being used as a camera boat or as a "picture boat", a second motorboat shall be in the immediate vicinity as a safety boat. On board the safety boat there must be a life buoy, a boat hook and an audible alarm system to notify of an accident and to initiate the rescue procedure. The life buoy must have a rope that is at least 15 m in length and at least 10 mm in diameter. At least one person aboard the safety boat should be qualified for life saving at sea. The safety boat shall be in two-way communication with the ship/craft, shall have the capacity to accommodate its own crew plus the number of persons it is providing protection for, and be able to return to shore under its own power.

3. Flotation garments shall be worn by all people working in small craft in open water. A variety of flotation garments is described in Appendix B.

D. Transfers Between Ships/Small Craft at Sea

1. Transferring between ships/small craft while at sea is hazardous for even the most experienced of seafarers. In situations where two or more vessels are to be used for filming at sea, it will always be preferable to have persons board at dock-side, then travel and return separately to disembark at dockside.

2. Transfers can be physically demanding and should only be undertaken by persons with demonstrated fitness and agility.

3. Transfers between ships and small craft shall only be undertaken with the supervision of the Ship's Master and shall use a Pilot's ladder. Persons shall have hands free to climb the ladder and be wearing an approved flotation device. Items that must be transferred shall be raised or lowered from the vessel with the higher freeboard, by rope and basket/bag.

REFERENCES:

- Canada Labour Code Part II, Marine Occupational Safety and Health Regulations (Canada Gazette Part II, Vol 121, No. 8, pages 1117-1387)

- Transport Canada, Marine Safety, Phone: 902-426-2060

Guideline No. 13: Water Hazards

Whenever there is a risk of drowning, personal flotation devices, that comply with CGSB standard CAN/CGSB-65.11-M88, must be worn.

The following procedures are recommended for all water work including ponds, rivers, lakes, swamps, bogs and oceans:

1. Water in large, controlled ponds located inside studio property should be analyzed with written results available to production staff no later than 48 hours prior to production use. If results indicate unacceptable levels of contaminants, steps to eliminate them shall be taken. A second, independent analysis should be conducted and results made available to the production staff no later than 24 hours before use;

2. When location filming is contemplated in still water areas such as swamps, bogs or ponds, the Producer shall determine the pollution or contaminant content through analysis of water samples. If results show unacceptable levels of contaminants, precautions should be taken (including the neutralization of hazards) or the location should be changed;

3. When filming in or on a body of water is contemplated, the Producer shall obtain all available knowledge from local Authorities as to currents, natural hazards, upstream configurations such as dams, waste disposal sites, chemical plants, dumpsites, flash-flood dangers, etc., prior to actual filming. Local Authorities should also be contacted to determine if any known hazards (such as subsurface objects, underwater life or contaminants) exist;

4. If a safety hazard is found to exist, the Producer should inform all cast and crew and take precautions to minimize or eliminate the risk, or relocate the shooting site;

5. When there is a risk of a person falling and potentially drowning that person must wear an approved flotation device and there must be rescue equipment nearby which includes; a motorboat, a life buoy, a boat hook and an audible alarm system to notify of an accident and to initiate the rescue procedure. In addition to the rescue equipment there also needs to be a designated rescue person on site who is trained and qualified to carry out the rescue procedures; NOTE: In some cases Actors/Performers will not be able to wear flotation devices due to costume limitations. In these cases the employer must ensure that all possible safety precautions are taken to reduce and limit the risk as much as possible. In addition to the above noted rescue equipment the employer must have in place a safe work procedure that has been communicated to all parties involved.

6. When it is necessary for personnel to work in fast moving rivers, downstream safety equipment such as ropes or nets shall be provided. Pickup personnel shall be stationed for emergency rescue;

7. When work is being done above water that has a fast current and where practical, a line shall be placed across the water that is made of polypropylene rope that is 10 mm in diameter and has buoys or some other flotation device attached;

8. Where boating traffic is anticipated, all precautions (including those mandated by the appropriate Authorities) shall be enforced;

9. All personnel scheduled for water work should be notified in advance;

10. Water temperatures should be taken into consideration (especially during the colder seasons or when production companies are shooting at distant and/or upper elevations) because of the real possibility of hypothermia--a lowering of the internal body temperature to below 37 degrees Celsius, caused by exposure to cold. HYPOTHERMIA CAN BE FATAL (refer to Appendix D);

11. Where necessary, the Producer should provide the required "wet" or "dry" suits for personnel required to work in the water. Appropriate safety measures and provisions for medical treatment should be readily available. Safety notices regarding the treatment of hypothermia should be attached to the Call Sheet;

12. All foreign objects which are potentially hazardous, other than those required for pictorial needs, should either be removed or identified and marked;

13. All personnel should be advised to keep potential contaminants away from the water (i.e. paints, thinners, repellant, gasoline and oils, etc.);

14. Post-immersion washing facilities should be available at all water use sites and used by all persons upon exiting the water; and

15. No electrical source other than DC shall be utilized for production in close proximity to water (including studio ponds, rivers, lakes, swamps, bogs and oceans) unless each AC source or unit or both, where necessary, is securely grounded with a Ground Fault Circuit Interrupter installed between any power source and a connected unit drawing from that source.

TRANSPORTATION SAFETY

Guideline No. 14: Transportation

A. Regulations

1. All equipment and vehicles used in transporting equipment and/or personnel shall comply with all Department of Transportation and Public Works rules and Regulations and must display a current Safety Inspection Sticker that is acceptable to the Nova Scotia Department of Transportation and Public Works.

2. The first aid supplies and services required on any vehicle, boat or aircraft that is regularly used to transport employees shall be determined on the basis of the maximum seating capacity of the vehicle, boat or aircraft. Where a vehicle, boat or aircraft is regularly used to transport only the driver of that vehicle, boat or aircraft, the employer of the driver shall ensure that the vehicle, boat or aircraft has at least a Number 1 first aid Kit

3. All drivers of equipment and vehicles shall be experienced, qualified and licensed to handle such equipment and vehicles. If the driver is full time and regularly works alone the driver must hold a valid emergency first aid certificate.

4. Where it is necessary to transport explosives, chemicals or hazardous materials, the vehicle must display any Hazardous Material symbols required by Transport Canada under the *Transportation of Dangerous Goods Act (Canada)* and be under the control of a competent person.

B. Seat Belts and Harnesses in Vehicles

1. It should be the intent of all parties to provide for the safety of all personnel in the vicinity of moving vehicles.

2. When any automotive vehicle is used in action sequences, the vehicle should be equipped with seat belts or harness, or both where necessary. It is recognized that, in the case of exceptional circumstances (e.g. vintage or antique vehicles), it may not be feasible or practical to install seat belts and/or harness. Seat belt Regulations only apply to vehicles manufactured after 1971.

3. Any vehicle involved in a collision of any kind (e.g. sideswipes, t-bones, headons, all roll-overs and all jumps) should be equipped with 4- or 5-point harness for both driver and passenger(s) and should be inspected and approved by the Stunt Coordinator. No person shall modify a seat belt or vehicle in any way which reduces its restraining action.

4. All tow vehicles and equipment towed shall have hitches that meet the regulated standards as laid out in the Weight Regulations of the Department of Transportation and Public Works and should be inspected and approved by the Key Grip.

5. All stop-arrest systems, tow rigs, etc. should be inspected and approved by the Key Grip.

C. Combustion Engines (gasoline, diesel, propane)

1. Adequate ventilation shall be provided when internal combustion engines are to be operated inside buildings or enclosed structures.

2. Exhaust gases shall be vented to the exterior.

Guideline No. 15: Insert Camera Cars

A. Vehicle Operations

1. An insert camera car shall be a vehicle that is specifically engineered for the mounting of cameras and other equipment for the purpose of photography of, or in, a stationary or moving vehicle. Only such vehicles specifically engineered for this purpose should be used for this purpose. The use of any other vehicle for this purpose is not advised nor should it be considered grounds for ignoring these Guidelines.

2. The camera car should be safety checked before and after use on a daily basis by competent personnel. Items such as brakes, tires, electrical system and towing equipment should be included in this check. A record of such checks should be kept and signed by the Operator.

3. Any rigging should be done in a safe manner by competent personnel.

4. An insert camera car used for night filming shall be provided with two portable tail lights which are affixed to the towed vehicle to provide rear lighting.

5. The maximum number of people on or in such vehicles should not exceed seven, unless the design of the vehicle clearly allows for more.

    i. A placard stating the maximum number of people allowed should be clearly visible on the rear of the vehicle.

    ii. In order to ensure clear lines of sight to the Operator, only he or she should be in the cab while the vehicle is in motion.

    iii. Any person not directly associated with the shot at hand should not be allowed in or on the vehicle while in motion.

6. Any equipment not essential to the shot at hand should not be transported on or in the Camera Car.

7. Rear Towing: no person shall be on the tow-bar or the exterior of the towed vehicle, except a competent Stunt person. An exception is when using any towed camera platform designed for such a purpose.

8. Extra consideration should be given to the safety of personnel working on such vehicles during adverse conditions (e.g.: bad weather, stunts and use of explosives).

9. All A/C electrical circuits should be protected by a Ground Fault Circuit Interrupter.

10. All laws relating to the operation of a motor vehicle on the highway shall be strictly observed at all times.

B. Communication

1. Any special communication used regarding the operation of a Camera Car (such as sound signals) should be announced at a meeting of all personnel involved prior to any use of the vehicle.

2. In the interest of uniformity throughout the industry, the following sound signals should be used by the operator of the vehicle:

    i. Prior to moving forward - two short horn blasts;

    ii. Prior to back up - three short horn blasts;

    iii. Emergency stop - one long horn blast; and

    iv. At night when shooting in residential areas, alternative signals could be used.

3. Only one person should be in contact with the Operator, through a designated two-way channel. In the event of radio silence being imposed, another set of signals shall be used.

4. A "dry run" or "walk through" of any action should be conducted prior to rehearsal or filming with all personnel involved present. An understanding of any intended action, possible deviations and authority to abort should be made clear to all concerned.

5. A copy of these Guidelines should be kept in the glove compartment of any insert Camera Car.

Guideline No. 16: Motorcycles

1. Extreme caution should be exercised at all times when motorcycles are being used. Only required personnel should be in the vicinity.

2. The Operator shall hold a current, valid motorcycle license.

3. The motorcycle Stunt Person should be experienced in and familiar with the techniques needed to safely perform the planned stunt.

4. Protective equipment such as a helmet, gloves, and other clothing shall be worn at all times. Helmets shall be CSA approved. Where there are special costume requirements, every precaution should be taken (e.g. wearing protective clothing under the wardrobe).

5. Ample time and discussion should be given during pre-production, between all concerned parties, as to what type of motorcycle will be needed to safely perform the required sequence. The specific motorcycle type should meet the needs of the specific motorcycle stunt.

6. Before any stunt is to be performed, a meeting should be called for all personnel involved and they should be thoroughly briefed at a meeting on the site where the sequence is to take place. This meeting should include:

    i. An "on-site walk-through" or a "dry run" with the Stunt Coordinator and all personnel involved in the event;

    ii. The Stunt Coordinator should plan and explain acceptable avenues of escape to personnel involved in the event; and

    iii. An understanding of the intended action, possible deviations and authority to abort should be made clear.

7. If any "on the day" deviations of a planned stunt become necessary, another meeting should again be called for all personnel involved in the hazardous procedure to confirm everyone's understanding of and agreement to the change(s).

8. Motorcycles, ramps, and other equipment should be examined prior to use by the Stunt Coordinator and the Motorcycle Operator to determine that they are in safe operating condition.

9. The sequence to be shot, including ramp jumps, "lay-downs", "end overs" and other potential hazards should be clearly set forth and discussed by all persons involved.

10. Medical providers with Advanced First Aid Certification should be present at all rehearsals and all performances involving motorcycle stunts and prepared to administer medical assistance on an emergency basis.

SPECIAL SAFETY CONSIDERATIONS

Guideline No. 17: General Stunt and FX Provisions

1. Stunts are to be performed only by competent stunt persons.

2. The designated Stunt Coordinator should:

    i. Have experience equal to or greater than that of the stunt person(s) involved in the scene;

    ii. Be responsible for the safety of the stunt;

    iii. Inspect and approve any gear, harnesses, etc. involved in the stunt; and

    iv. Ensure that the stunt persons are competent to perform the stunt.

3. All stunt persons should be notified reasonably in advance of their involvement in a stunt sequence.

4. Stunt persons shall wear protective equipment.

5. Wardrobe for persons involved in a stunt should be approved in advance by the Stunt Coordinator.

6. Prior to the performance of all stunts, dangerous work situations, or pyrotechnic effects, the Production Manager through the 1st Assistant Director should give notification to all Key personnel. The Call Sheet should also state that explosive or pyrotechnical special effects are to be utilized.

7. Before any stunt is to be performed, a meeting should be called for all personnel involved and they should be thoroughly briefed at a meeting on the site where the sequence is to take place. This meeting should include:

    i. An "on-site walk-through" or "dry run" with the Stunt Coordinator and all personnel involved in the event;

    ii. The Stunt Coordinator should plan and explain acceptable avenues of escape to personnel involved in the event; and

    iii. An understanding of the intended action, possible deviations and authority to abort should be made clear.

8. If any "on the day" deviations of a planned stunt or FX effect become necessary, another meeting should again be called for all personnel involved in the hazardous procedure to confirm everyone's understanding of and agreement to the change(s).

9. Medical providers with Advanced First Aid Certification should be present at all rehearsals and all performances involving stunts or any other potentially hazardous activities and prepared to administer medical assistance on an emergency basis.

Guideline No. 18: High Falls – Use of Air Bags

1. The Supplier of any air bags should be given, by the Stunt Coordinator, information in complete detail respecting the type of stunt for which the air bag is to be used, the height of the jump, the weight going into the bag and a description of the area where the bag is to be used, in order that the proper bag is selected.

2. Fans shall be in safe and good mechanical condition.

3. The appropriate generator size should be used to supply power to the fan.

4. If at all possible, the generator should be no more than fifty feet away from the fan. All electrical connections should be taped or sealed so that the connections cannot come loose or disconnect when the air bag is in use.

5. The vents and seams of the air bag should be inspected before each use.

6. All air bags should be of quality material and stitching.

7. Each air bag should be pre-tested prior to actual use with weights equal to or more than the weight of the person(s) performing the highfall. The test should be conducted at the actual site and from the height of the highfall.

8. Each air bag should be set up by a Stunt/Safety Person qualified in the set-up and safe use of air bags.

9. The Jumper and the Safety Person (mentioned in #8) should not be one and the same person.

10. There should be designated spotters around each air bag to safeguard the Jumper and to ensure that the fans continue to be operational.

Guideline No. 19: Smoke Inhalation

1. When creating smoke on any set, the lowest concentration needed to achieve the desired effect should be used, subject to the condition that under no circumstances shall any person be exposed to a smoke concentration in excess of regulatory limits (refer to WHMIS: Threshold Limit Values – Appendix S).

2. When smoke is created on an interior set, the air shall be periodically ventilated or exhausted, vertically and laterally, and appropriate means to do so shall be provided. All personnel and animals shall be given a break away from the stage at appropriate intervals based on the smoke concentration. Air quality should be periodically tested for contaminant levels to determine ventilation requirements.

3. The only materials which are generally acceptable for use to produce special effects smokes and fogs are:

    i. Propylene Glycol; and

    ii. Glycerol.

4. The following materials may also be used for lighting effects, but only small amounts for brief durations. These chemicals may cause irritation and exposure levels shall be monitored:

    i. Cryogenic gases (dry ice, liquid nitrogen);

    ii. Triethylene Glycol, Butylene Glycol, Polyethylene Glycol; and

    iii. Propane rigs (oxygen depleting)

5. The following materials should not be used to produce lighting effect smokes and/or fogs on any production. In other countries, these substances are legally banned from use:

    i. Petroleum Distillates or oil products, including food grade and medical grade mineral oil based products;

    ii. Carcinogenic or suspect carcinogenic chemicals (e.g.: contact cement);

    iii. Smokes from combustion;

    iv. Fumed and Hydrolyzed Chlorides (Ammonium Chloride, Titanium Tetrachloride, Zinc Chloride);

    v. Ethylene Glycol, Diethylene Glycol; and

    vi. Charcoal (produces carbon monoxide).

6. When creating smoke on interior sets, respirators approved by the National Institute for Occupational Safety and Health (NIOSH) or an equivalent approval agency, shall be provided. These respirators shall provide protection from all possible contaminants produced (e.g. dusts, mists, gases, and vapours).

7. When smoke is used on any interior set, all non-essential personnel should be removed from the set. Whenever possible, personnel should be removed from any dressing rooms located in the immediate vicinity.

8. When creating a fire at an exterior location, all reasonable precautions to prevent fire and smoke inhalation should be undertaken. Respirators appropriate for exterior smoke shall be available upon request.

9. When smoke is scheduled to be created on any set, prior notification as to use and type should be given to all personnel. Whenever possible, the Call Sheet should state that smoke is to be used and the person responsible for providing respirators should be designated.

Guideline No. 20: Open Flames

Definitions:

Open Flame: burning gases or vapours of a fire that is visible as light in various colours and that may come in contact with a solid, liquid, or gas and possibly cause the material to ignite.

Pyrotechnics: explosives classified as high hazard fireworks having a practical use in the List of Authorized Explosives published by Explosives Branch of Natural Resources Canada.

1. The Special Effects Coordinator and Stunt Coordinator should be consulted regarding all necessary fire prevention, medical and safety precautions which shall be undertaken on any set prior to the use of any open flame.

2. Appropriate Fire and Government Authorities shall be contacted for their approval, comments and/or requirements prior to use of open flames on a set.

3. When torches, candles, fireplaces or other open flames are used, such uses must be under controlled situations with due regard for the safety of all involved.

4. All open flames shall be controlled by persons designated by the Producer. Designated persons must be equipped with and trained in the use of approved fire extinguishing equipment.

5. Flammable and combustible liquids and pyrotechnics shall be kept a safe distance from open flames. Continual ventilation shall be established before ignition and continued until clean-up and storage is completed. Flammable and/or combustible liquids and pyrotechnics shall always be stored in approved containers.

6. Plans for all gas systems supplying open flames (including small propane rigs) shall be submitted to and approved by the Office of the Fire Marshall in accordance with applicable Statutes and Regulations, prior to any use on the set. This is to ensure the use of CSA approved materials (e.g. hose, clamps, in-line regulators, etc.) and that the operator is qualified. Plans shall indicate intended use (e.g. interior, exterior, FX, etc.).

7. Each propane tank shut-off shall be clearly labeled on/off, and shall be operated by a designated person who has a clear view of the propane flame at all times.

8. All open flames shall be stationary and firmly secured.

9. All performers, including Stunt Performers, should be notified reasonably in advance of their involvement with open flame.

10. Any Stunt personnel directly involved with fire should wear protective fire equipment (i.e. NomexTM or equivalent suits). All wardrobe to be used in any type of burn should be approved by the Stunt Coordinator and/or Special Effects Coordinator.

11. Water gel should be used at all times on all exposed areas of skin, including performer's hair if it is uncovered, in consultation with the Stunt Coordinator and Special Effects Coordinator. A performer should have the option of wearing a natural hair wig.

12. If the stunt is a "partial burn", there should be no fewer than two designated safety persons each equipped with and trained in the use of approved fire extinguishers. A "partial burn" is defined as follows:

    When a Stunt performer carries an amount of fire limited to a restricted area of the body (i.e. an arm, leg, portion of the torso) and does not inhibit the sight or breathing of the Stunt Performer.

13. If the stunt is a "full burn", there should be no fewer than three designated safety persons each equipped with and trained in the use of approved fire extinguishers. A "full burn" is defined as follows:

    *When a substantial part of the body is on fire or when the flames **could** reach or interact with the head area and **could** limit the sight or breathing of the Stunt Performer, or where breathing apparatus or eye protection is required.*

14. Medical providers with Advanced First Aid Certification should be present at all rehearsals and all performances involving open flames and pyrotechnics.

15. A special note should be made in the safety section of the Call Sheet when fire stunts are performed.

16. Open flames and/or pyrotechnics shall not be permitted on sets that have an audience.

CONTACTS:

- Department of Labour and Advanced Education, Office of the Fire Marshal, Phone 902-424-5721; and Occupational Health and Safety Act, Blasting Safety Regulations;
- Natural Resources Canada, Pyrotechnics: Senior Inspector, Atlantic Region, Phone 902-426-3599

REFERENCES:

- Ref. N.F.P.A. 1126;
- Explosives Act of Canada;
- Display Fireworks Manual;
- Pyrotechnics Special Effects Manual, 1997;
- Nova Scotia Fire Safety Act

Guideline No. 21: Explosives and Pyrotechnics

Definitions:

Pyrotechnics: explosives classified as high hazard fireworks having a practical use in the List of Authorized Explosives published by Explosives Safety and Security Branch (federal jurisdiction).

Blasting: using a substance, including a detonator or primed explosive, that is manufactured or used to produce an explosion by detonation or deflagration and that is regulated by the Explosives Act, but does not include ammunition for weapons or fireworks (federal jurisdiction).

A. Use of Explosives and Pyrotechnics

1. Prior to the performance of all dangerous work situations or pyrotechnic effects(e.g. working with explosives, explosive devices, flammable or combustible liquids, gas or chemicals on any set), the Production Manager, through the 1st Assistant Director, shall give notification to all personnel. The Call Sheet should also state that explosive or pyrotechnical special effects are to be utilized.

2. Before any stunt is to be performed, a meeting should be called for all personnel involved and they should be thoroughly briefed at a meeting on the site where the sequence is to take place. This meeting should include:

    i. An "on-site walk-through" or "dry run" with the Stunt Coordinator and all personnel involved in the event;

    ii. The Stunt Coordinator should plan and explain acceptable avenues of escape to personnel involved in the event, and

    iii. An understanding of the intended action, possible deviations and authority to abort should be made clear.

3. If any "on the day" deviations of a planned stunt or FX effect become necessary, another meeting should again be called for all personnel involved in the hazardous procedure to confirm everyone's understanding of and agreement to the change(s).

4. It is recognized that there can be unforeseen or unique situations which might require on-site judgment; such judgment must be made in the interest of safety of cast and crew.

5. Prior to and after any pyrotechnical effect, the Special Effects Coordinator shall remain on set at all times and be the final authority on all matters pertaining to safety.

6. The 1st Assistant Director or the Special Effects Coordinator, or both where necessary, shall clearly announce to all personnel the location of exits and escape routes. The escape route shall provide unobstructed passage to the exterior of the building, structure or work place.

7. Immediately prior to each take, the 1st Assistant Director should check the escape route in order to assure that it is, and will remain, accessible. Any person who is unsure of the designated escape route should check with the 1st Assistant Director and learn the escape route before entering the work area.

8. The 1st Assistant Director or FX Coordinator, or both where necessary, shall ensure that there is a clear fire route for emergency and firefighting vehicles at all times.

9. Only persons and crew necessary for the purpose of filming should be in the explosives area. The 1st Assistant Director or Special Effects Coordinator should ensure that before a special effect is performed that all other personnel are safely cleared away from the explosive area.

10. No smoking is permitted in the explosive area. "No smoking" signs shall be posted in all areas of the premises or locations where explosives and/or pyrotechnic devices are stored and handled.

11. After each shoot, no one shall go into the explosives area other than the Special Effects Coordinator until the Special Effects Coordinator deems it safe to do so.

12. No child under the age of 16 should be close to explosives nor should they be body squibbed, except for children who are designated as qualified Stunt Performers and for whom the signed authority of the Parent or Guardian has been previously obtained.

B. Transport and Storage

1. Transportation and storage of explosives and/or pyrotechnic devices shall be governed by the provisions of all applicable Federal, Provincial and Municipal laws and the proper Authorities shall be notified when using explosives on the set.

2. Only qualified drivers shall transport explosives or hazardous products. Transport vehicles shall display appropriate Hazardous Material symbols as required by Transport Canada (refer to Nova Scotia Dangerous Goods Transportation Act & Nova Scotia Blasting Safety Regulations).

C. Regulations Pertaining to Explosives

1. All explosives and explosive devices must be shunted.

2. Detonation of explosives shall be from a separate DC power supply.

3. When preparing pyrotechnics, radio transmissions of any kind including mobile phones in the area shall be turned off.

4. Any special effects which involve personnel connecting, loading or firing a blast shall obtain the necessary approval for 'specialized blasting' as per section 23-25 of the NS Blasting Safety Regulations.

5. Employees/employers carrying out pyrotechnics must have the proper certification through Natural Resources Canada, Explosives Regulatory Division (Federal).

REFERENCES:

- N.F.P.A. 1126 "Pyrotechnics Before a Proximate Audience"
- Nova Scotia Department of Labour and Advanced Education, Occupational Health and Safety Act, Blasting Safety Regulations.
- Natural Resources Canada, Explosives Regulatory Division, Phone: 902-426-3599
- Transport Canada, Dangerous Goods Transportation Act, Transportation of Dangerous Goods Regulations, Phone: 1-800-387-4999 or 613-992-4624

Guideline No. 22: Use of Firearms

*This Guideline applies to **ALL** firearms – authentic or replica.*

A. The Firearms Handler

1. All Firearms should be in the care and charge of the designated Firearms Handler who:

    i. Shall be in possession of a valid Firearms License, Possession-Acquisition Certificate, Permit to Carry a Restricted Weapon, and Permit to Temporarily Store a Restricted Weapon;

    ii. Should be familiar with;

        a. Any firearms being used and their respective safety requirements;

        b. Loading, unloading, dismantling, cleaning and reassembly procedures; and

        c. All requirements regarding the handling, transportation and storage of firearms, ammunition and black powder.

2. The Firearms Handler is responsible for:

    i. Checking firearms before and after each use;

    ii. Cleaning all firearms daily (after use);

    iii. Keeping a daily inventory of all firearms in their care; and

    iv. Compliance with all Regulations regarding the storage and use of firearms, ammunition and black powder.

3. All firearms should be registered with and placed in the care of the Firearms Handler.

4. Any firearm not immediately required on set shall be:

    i. Unloaded; and

    ii. Stored in a container, receptacle or room that is kept securely locked and that is constructed so that it cannot readily be broken open.

5. Firearms should be removed from Actors or Stunt Performers between takes whenever possible and placed in the care of the Firearms Handler.

6. The Firearms Handler should be allowed time:

    i. To ensure compliance with any applicable safety requirement or procedure;

    ii. To ensure that any Actor or Stunt Performer using a firearm is fully aware of the safety rules and procedures for the handling and firing of the firearm; and

iii. To discuss with the Director and Assistant Directors the use of any firearms required.

7. It should be the sole responsibility of the Firearms Handler to load and unload firearms. If this is not practical (e.g. in the case of large numbers) the Firearms Handler may supervise the handling, loading, and unloading of firearms by designated assistants. Any such assistants should be designated by the Firearms Handler, who should have adequate time to familiarize them with the safe handling of the firearms and ammunition in use, and all procedures expected of them.

B. Handling Firearms on Set

1. FIREARMS ARE DANGEROUS AND SHOULD BE TREATED AS LOADED AT ALL TIMES.

2. i. Live ammunition should NEVER be used.

   ii. Blanks can be as deadly as live ammunition, and should be treated accordingly.

3. UNDER NO CIRCUMSTANCES should a firearm be pointed at anyone, including yourself.

4. NEVER indulge in "horseplay" while in charge of or responsible for any firearm.

5. A "No Smoking" rule shall apply to any area where firearms, ammunition or black powder is stored, and approved signs to this effect posted.

6. A firearm should never be put down anywhere but in its designated storage place. Never put a firearm down in such a way as to allow dirt or sand to enter it. Never discharge a firearm with dirt, sand or unapproved blockage (e.g. a "choke") in the barrel.

7. In the event of a misfire or jam, the firearm should be taken out of use until such time as the cause can be determined, a repair effected, and test discharges performed. The decision to resume use of the firearm should be solely that of the Firearms Handler.

8. No crew, cast or other personnel should be in the vicinity of a firearm being discharged without the minimum of approved eye and ear protection.

9. 1/2 inch (minimum) Plexiglas or Lexan should be placed between any personnel and any firearm discharged in their vicinity.

10. All personnel should be given a verbal warning prior to the discharge of any firearm.

11. No firearm should be loaded (made "hot") until immediately prior to a take. If a delay of any kind ensues, the firearm should be unloaded. A "hot" firearm should not be in the possession of any Actor or Stunt Performer except during a take.

C. Ammunition/Firearms Specifications

1. All applicable Statutes and Regulations shall be adhered to in the transportation, handling and storage of all firearms, ammunition and black powder.

2. Replica firearms should be used unless a practical firearm is required.

3. In all situations which require a practical firearm:

    i. Only a firearm which has been manufactured for this purpose by qualified personnel shall be used to fire a charge; and

    ii. No firearm which is to be discharged shall be modified in any way, unless the modification is performed by a qualified Gunsmith and with the approval of the Manufacturer.

4. Only the appropriate type of blank ammunition shall be used. Ammunition made specifically for theatrical use should be obtained in the correct load for the effect required.

5. Factory-loaded ammunition should not be tampered with.

6. Any safety Guidelines or specifications laid out in handbooks supplied by the Manufacturer of a firearm should be made known and adhered to by all concerned.

REFERENCE:

Nova Scotia Department of Justice
Provincial Firearms Office
5151 Terminal Road, P. O. Box 7
Halifax, Nova Scotia, B3J 2L6
Phone: 902-424-6689/1-800-731-4000 ext 6505
Fax: 902-424-4308

Guideline No. 23: Animal Handling

Definition:

"Animal" means all sentient creatures including mammals, birds, fish, reptiles, and insects.

Any production company intending to use any animal in a film should consult with the Nova Scotia SPCA well in advance for detailed advice regarding the care of the specific animal involved.

A. Overview

1. No animal should be killed or injured for the sake of a film production.

2. No animal shall be allowed to become overheated or suffer discomfort. The production company shall supply adequate food, water and reasonable shelter, both on- and off-camera.

3. Adequate exercise and rest should always be provided.

4. Stunts or potentially dangerous animal action should be discussed with the Nova Scotia SPCA personnel prior to filming.

5. A veterinarian knowledgeable in the care of the animal to be used should be located prior to filming to ensure availability in case of emergency.

6. A veterinarian knowledgeable in the animal to be used should be present on any set when there are activities planned that could potentially be harmful to the animal.

7. Tranquilization or sedation of any animal should be avoided. If necessary, any tranquilizer or sedative should be administered by a veterinarian who is:

    i. Knowledgeable in the care of the animal to be used; and

    ii. Prepared to remain with the animal until any adverse effects of the tranquilizer or sedative have worn off.

B. The Animal Handler

Complete control of any animal, including authority to abort any animal-related activity at any time, should be given to a competent Animal Handler.

1. The designated Handler should ensure that any animal required to work on a film set/location is well prepared for such situation, and should be satisfied that the animal will perform in a manner conducive to the safety of the animal, cast, crew and general public.

2. The Handler(s) supplying the animal should be responsible for obtaining all applicable permits, licenses, medical safeguards, inoculations, etc.

3. The Handler should train on site wherever possible to acclimatize the animal to film set conditions.

4. Where animals and Performers are working together, ample time should be allowed to permit the Handler, Stunt Coordinator, Performers and animals to become familiar with the routine, and with each other.

5. Both the Handler and the Assistant Directors should instruct the cast and crew prior to the call of Wrap or Break that the set will be cleared of all animals FIRST, PRIOR to being cleared of cast or crew.

C. General Precautions

1. Only competent Special Skills Performers, Stunt people, professional Trainers, and/or Wranglers should be authorized to work with animals on- or off-camera.

2. An opportunity should be given to the Handler and Stunt Coordinator to address the cast and crew (including parents/guardians of child Performers) about safety precautions while the animals are on set, including (but not limited to) information such as: safe distances to be maintained, provisions for escape routes, authority to abort, no running, no feeding, no personal pets on site, etc.

3. Equipment operated in conjunction with animals should be checked for safe operating condition by both the Handler and the person(s) responsible for the equipment involved. The close proximity use of smoke, loud machinery, etc. should be used only after consultation with the Handler.

4. A "closed set" should be maintained where animals are working.

REFERENCE:

Provincial Inspector, Nova Scotia SPCA
Suite 422, 1600 Bedford Highway
Bedford, Nova Scotia, B4A 1E8
Phone: 902-835-4798
Fax: 902-835-7885
animals@spcans.ca

Guideline No. 24: Skydiving

The following recommendations apply where skydiving will be used in filming. The term "Parachutist" refers to a Parachutist who has a current and valid certification card issued by a nationally or internationally recognized certification organization such as the Canadian Sport Parachuting Association.

1. Transport Canada shall be contacted to determine what type of endorsement or certification Parachutists involved in the scene are required to possess. The Canadian Sport Parachuting Association's determinations and suggestions should also be sought.

2. An *Application for Authorization to Conduct Parachute Descents* form shall be filed with Transport Canada prior to any Skydive, and be accompanied by proof of consent of the owner(s) of the area to be used as a "Drop Zone", as well as Municipal authorities (if applicable). Transport Canada should be contacted, in writing, at least two weeks prior to any filming involving Skydiving.

3. When certification information is obtained, a designated Skydiver Coordinator shall be named. This person shall:

    i. Have an endorsement or certificate equal to or greater than that of any Parachutist(s) involved in the scene;

    ii. Be responsible for the safety of the Skydive, as well as securing proper authorization from Transport Canada; and

    iii. Ensure the pilot is endorsed for Skydiving and the plane meets all applicable Transport Canada Regulations.

4. Prior to the jump, ample time should be allotted for the Skydiver and Coordinator to evaluate the safety of all equipment, props, wardrobe, etc. to be used or worn by the Parachutist during the jump. Final approval for these items rests with the Skydiver.

5. There should be a "dry run" on the ground, at either the Landing Site or Drop Zone, prior to takeoff. It shall be the Skydiver's responsibility to evaluate mitigating factors such as location, weather, communication and security at the time of the Skydive and give final approval for the jump to occur. Before each jump, ample time should be allotted to thoroughly brief all persons involved. Final approval of the jump rests with the Skydiver.

6. Medical providers with Advanced First Aid Certification shall be present at all rehearsals and all activities involving Skydiving and be prepared to administer medical assistance on an emergency basis.

7. The transportation of items considered to be of a dangerous nature (such as firearms and pyro) must be approved by the applicable governing body. Taking off and landing in a built up area requires prior authorization from Transport Canada.

8. This Guideline should be referred to on the Call Sheet whenever Skydiving is scheduled.

REFERENCES:

Transport Canada, Regional Headquarters,
P. O. Box 42, Moncton, New Brunswick, E1C 8K6
Phone: 1-800-387-4999

Canadian Sport Parachuting Association
300 Forced Road
Russell, Ontario K4R 1A1
Phone: (613) 445-1881
Fax: (613) 445-2698
Email: office@cspa.ca

Guideline No. 25: Helicopters

1. The helicopter Pilot is the final authority concerning all helicopter operations. If in doubt, ask the Pilot through the 1st Assistant Director. All final decisions regarding the helicopter, its aerial traverse and hovering positions rest with the Pilot.

    i. If the helicopter is to be functional, the Pilot shall ensure the helicopter meets all pertinent Transport Canada Regulations and that all pertinent documentation has been filed with the appropriate Federal, Provincial and Municipal authorities.

    ii. Plot plans and graphics detailing landing and take off areas, intended flight paths, designated emergency landing sites, locations of squibs (and type of explosives to be used) should be compiled by the Department Heads involved and approved by the Pilot prior to filming.

2. All Guidelines relating to stunts, firearms, pyro, etc. will be fully observed.

3. Prior to take off, the Pilot shall review the craft's safety features and discuss emergency contingency procedures with all persons involved. Ample time should be allotted for the Pilot to evaluate the fitness of the helicopter, accessory equipment and passengers prior to each run.

4. The landing and take off areas should be cleared of debris and, where necessary, wet down. However, in the case of combined vehicle/helicopter stunts, the ground should only be wet down if this is acceptable to both the Stunt Coordinator and Pilot.

5. Single channel, dedicated two-way communication between ground and helicopter shall be established and maintained at all times. During operation of the helicopter, only one ground contact person shall be used to relay information.

6. There shall be no smoking within 50 feet of the helicopter.

7. All personnel shall remain at least 50 feet away from the helicopter unless they are required to approach the craft.

8. No person or animal should walk under the rear or "tail" section of a helicopter.

9. All crew and cast involved should be aware of the proper procedures for working around helicopters, such as:

    i. Leave and approach helicopters from the front, with your eyes and head forward. Always use extreme caution when working around a helicopter - especially when the helicopter's engine is running;

    ii. Carry all equipment parallel to the ground at waist level or below, within 50 feet of a helicopter;

    iii. Never extend any equipment vertically (such as cameras, light or grip stands, sound booms, etc.) into the rotor blades of a helicopter;

    iv. Never, under any circumstances, throw or leave anything (such as rolls of tape, clothing, paper, tools, etc.) within 50 feet of a helicopter; and

v. Always protect your eyes as well as you do your equipment whenever a helicopter is landing or lifting off.

10. Crews filming from helicopters over large bodies of water should always wear survival suits.

11. The transportation of items considered to be of a dangerous nature (such as firearms and pyro) must be approved in advance by the Dangerous Goods Division, Air Carrier Branch, and Transport Canada. Taking off and landing in a built up area requires specific authorization from Transport Canada. Transport Canada should be contacted, in writing, at least two weeks prior to any filming involving a helicopter.

12. Camerapersons hanging out of a helicopter with the door off shall wear a seat belt and a safety harness. The camera should be secured separately from the Cameraperson.

13. This Guideline should be referred to on all Call Sheets, whenever helicopters are to be used.

REFERENCE:

Transport Canada
Dangerous Goods Division, Air Carrier Branch
P. O. Box 42, Moncton, New Brunswick, E1C 8K6
Phone: 1-800-387-4999

Guideline No. 26: Fixed-Wing Aircraft

1. All flights must conform with Transport Canada Regulations. All certificates and/or waivers must be in effect and available for on-site inspection. The Pilot must obtain proper certificates and/or waivers before operating an aircraft in the situations outlined below. Transport Canada should be contacted, in writing, at least two weeks prior to any filming involving an aircraft.

2. Except where necessary for take off or landing, the operation of an aircraft below the following altitudes is prohibited, without prior approval from Transport Canada:

    i. **Over Populated Areas**: over any area of a city, town or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft; and

    ii. **Over Other Than Populated Areas**: an altitude of 500 feet above the surface, except over open water or sparsely populated areas. In that case, the aircraft may not be operated closer than 500 feet from any person, vessel, vehicle or structure.

3. Before a stunt or sequence is to be performed, all persons involved shall be thoroughly briefed. There should be a "dry run" on the ground at the site, and:

    i. The persons necessary for filming will be briefed as to any potential hazards and safety concerns prior to the filming;

    ii. A pre-planned stunt shall not be changed in any way without the authorization of the Pilot and the Aerial Coordinator, if any; and

    iii. If there is a question (as determined by the Pilot) as to the safety of any aerial filming sequence involving low, over-the-camera shots, a locked-off camera should be used.

4. Only persons and crew necessary for the purpose of filming will be in the area. All other personnel are to be at least 500 feet away from the path of the flying aircraft.

5. Single channel dedicated two-way communication between ground and the aircraft shall be established and maintained at all times. During the operation of the aircraft, only one ground contact person shall be used to relay information.

6. Where required by the appropriate regulatory agency, there will always be an Aerial Coordinator on the ground when an aircraft is in the air or taxiing. An Aerial Coordinator will be appointed by the designated Chief Pilot.

7. Aircraft engines shall not be started and the aircraft shall not be taxied in spectator, cast or crew areas until appropriate measures have been taken to prevent hazardous conditions for spectators, cast and crew.

    i. Cast, crew and equipment shall be protected from debris thrown back by airplanes taxiing, taking off or landing.

ii. If an aircraft is being filmed with the engine running, adequate safety precautions shall be taken in connection with activity in front of the aircraft. Whenever an aircraft engine is running, a licensed person should occupy the Pilot's seat and be in control of the aircraft. The aircraft should be anchored against forward movement.

8. There shall be no smoking within 100 feet of the aircraft or support vehicles.

9. A plane shall be certified if it is to fly with the door removed. When filming with the plane's door removed, the Cameraperson(s) shall wear seat belt(s) and safety harness. The camera should be secured separately from the Cameraperson.

10. Aircraft structures can be damaged easily while on the ground. The Pilot's permission should be obtained before pushing, handling, sitting on or in, or laying any objects of any kind on an aircraft.

    i. If a foreign object falls into or against an aircraft, report it immediately to the Pilot or Aerial Coordinator.

    ii. Never allow cast or crew to occupy an aircraft while its engines are started or running, unless the Pilot is in full control.

11. Each end of an operational runway or landing area should be cleared prior to take-off and landing. Appropriate safety precautions should be taken as to the placement of camera equipment when filming the take-off or landing.

12. Acrobatic maneuvers shall be conducted in a direction which will most nearly parallel the boundaries of the designated cast, crew and/or equipment area, or in a direction away from such an area.

13. Crews filming from aircraft over large bodies of water should always wear survival suits.

14. This Guideline should be referred to on all Call Sheets, whenever aircraft are to be used.

Guideline No. 27: Underwater Stunts and Underwater Film Operations

This guideline applies to all diving operations conducted in relation to underwater stunts and underwater work during film operations. The following DEFINITIONS apply in this Guideline:

Buddy System: the system of assigning diving partners who are responsible for maintaining effective communication with each other and rendering assistance when necessary;

Competent: qualified because of knowledge, training and experience to carry out assigned duties and knowledgeable of Regulations relating to duties;

Diving Supervisor: the individual who, because of his/her diving qualification and experience, is responsible for a particular diving operation;

Dive Team: a minimum of three personnel involved in a diving operation;

Free Swimming: diving without a lifeline or surface tether;

Hyperbaric Chamber: a pressure vessel and associated equipment designed to subject humans to greater-than atmospheric pressure;

Lifeline: a rope or other material of sufficient strength to recover and lift a diver and his/her equipment from the water;

*SCUBA: **S**elf **C**ontained **U**nderwater **B**reathing **A**pparatus; and*

Stand-by Diver: a diver who is trained to operate at the depths and in the circumstances in which the diver in the water is operating. The primary function of the Stand-by Diver is to render assistance in the event of emergency.

A. Diving Regulations and Safety Measures

The following is only an overview of the regulation and some of its requirements, for a complete description and explanation of what is required for diving operations in Nova Scotia refer to the NS Occupational Diving Regulations.

Divers Requirements

In Nova Scotia each diving supervisor, diver and diver's tender must meet the competency requirements set out in CSA Standard Z275.4-02, "Competency Standard for Diving Operations" for their position and the depths and circumstances of the dive. All members of a dive team must hold a valid standard first aid certificate, must be trained in the use of oxygen therapy equipment that is provided at a dive site and they must all have photo identification available at the site. Divers must also be physically fit and meet various fitness requirements and pass specific medical examinations, see sections 12 – 15 of the NS Occupational Diving Regulations for details.

The employer/producer must designate, in writing, one competent person to be the diving supervisor for a dive site at any one time. A diving supervisor must supervise all dives conducted and ensure that the Act and the Diving Regulations are complied with before a dive, during a dive, and after a dive. A diving supervisor must be at the dive site, however he must not dive unless it is necessary to do so in a health or safety emergency. The diving supervisor

may dive when another person, who is competent, is delegated in writing by the diving supervisor.

Before a dive is conducted a written plan must be prepared that meets the requirements of Section 20 of the NS Occupational Diving Regulations. The diving supervisor for the planned dive or dives must brief the rest of the dive team on the details of the dive plan along with the requirements outlined in Section 21 of the Occupational Diving Regulations.

Dive Crew Size

A minimum crew of three must be present at each diving operation and must include at least two divers and one team member who acts as both a supervisor and a diver's tender. One of the divers must be a standby. The minimum crew requirement changes according to depth, equipment usage, degree of hazard and other conditions. In many situations there is a requirement for more than a crew of three to be present, see Section 9 of the Occupational Diving Regulations for a detailed description of dive team requirements.

SCUBA Prohibitions

SCUBA equipment cannot be used for dives more then 40m in depth. In addition, the use of SCUBA is completely prohibited at construction or industrial underwater work sites for some activities (ex. welding). Diving in the entertainment industry will in most cases require the use of SCUBA, however there are many situations where SCUBA is not allowed, for specific provisions on the prohibition and use of SCUBA see sections 86-87 of the NS Occupational Diving Regulations.

Equipment Examination, Testing, Maintenance & Repair

Diving equipment must be examined by a competent person each day it is used and it must be tested, repaired and maintained in accordance with the manufacturer's specifications. Records of tests and repairs must be kept for 2 years.

Diver Logbook and Supervisor's Record

All divers must keep a log book containing the information specified in the Nova Scotia Occupational Diving Regulations. Entries into the logbook must be signed by the diver, and countersigned by the diving supervisor. Diving supervisors must keep a supervisor's record and file a signed copy of the record with the employer within 7 days of the end of the dive. The Employer (dive contractor) must keep the supervisor's record for at least 2 years.

Responsibility for Safe Diving

Diving and underwater work can be very dangerous and physically demanding. Because of all the hazards and regulatory requirements employers/producers are strongly encouraged to hire only professionally trained certified divers and diver's tenders. This guideline only highlights some of the duties and responsibilities regarding diving and by no means replaces the requirements set out in the NS Occupational Diving Regulations, and if there is a difference between this guideline and the Regulation, the Regulation will apply. Every person at a dive site must ensure they perform all duties and meet all requirements of the Regulation. A diver must not dive if any of the regulatory duties or requirements are not met, regardless upon whom the Regulations placed the duty or requirement.

General Information

1. A designated competent Diving Supervisor shall be assigned to supervise each dive. His/her duties shall include, but not be limited to, the following:

    i. Planning the dive(s);

    ii. Briefing the crew, including emergency procedures that are to be followed in the event of a malfunction of the equipment or system;

    iii. Ensuring that all necessary equipment is provided and in good operating condition;

    iv. Supervising the entire diving operation;

    v. Reviewing divers' logbook; and

    vi. Keep a diving supervisor's record which must include all the information outlined in the applicable section of the Regulations.

2. Each diving supervisor, diver and diver's tender must meet the competency requirements set out in CSA Standard Z275.4-02, "Competency Standard for Diving Operations" for their position and the depths and circumstances of the dive.

3. For each diving operation there must be a minimum dive team of three. Within the team there must be at least two divers and one team member who acts as both a supervisor and a diver tender.

4. Each diver and diver's tender must hold a valid standard first aid certificate, be trained in the use of oxygen therapy equipment (if made available) and have photo identification available at the site. The Nova Scotia Occupational Diving Regulations do not make Oxygen Therapy mandatory, it is optional.

5. Except in the case of accident or unavoidable circumstances, a diver shall not be permitted to remain at any depth longer than the maximum time planned for that depth during that dive.

6. A diver shall not be permitted to dive unless a signed statement issued by a physician is presented, stating that the diver has received a comprehensive physical examination during the preceding 24 months and has been found to be free of any medical condition that would prohibit the type of diving for which the diver is to be employed.

7. When the diver shows any indication of pressure-related illness or requires therapeutic recompression for any reason, treatment shall be initiated and the physician shall be alerted immediately.

8. Before commencing a diving operation, the Diving Supervisor shall ensure that all diving plant and equipment, including umbilicals, winces, cables, hyperbaric chambers, etc. used in connection with the diving operation are in operating condition.

9. The Employer or the Diving Contractor shall ensure that there is a second source of power for the diving system in the event of failure of the primary source.

10. When diving operations are in progress, warning devices shall be displayed as follows:

    i. Buoys, flags, lights, lamps, or flares to define the limits to be kept clear of by any equipment other than that connected with the diving operation; and

    ii. In navigable water, flags and lights in accordance with the requirements of the Regulatory Authority.

    Warning Signals - Divers Down

    BY DAY: International Code Alpha and/or any locally recognized signal (Divers' red and white flag).

    BY NIGHT: Vertical lights in a red-over-white position indicating underwater operations (this is an international code).

11. An effective two-way means of communication between the underwater site and the person in control of equipment that may assist the diving operation must be provided.

12. A lifeline tended from the surface shall be used at all times in diving operations under ice, or where potentially hazardous situations such as water currents, low visibility and adverse weather conditions exist.

13. Dive plan must be posted on all boats in the area.

B. SCUBA Diving

1. A diver using SCUBA shall limit depth of dives to not exceed 40 meters (130 feet).

2. A diver using SCUBA shall use the buddy system. The buddy system shall consist of two free-swimming divers, each of whom shall:

    i. Be responsible for the other's safety;

    ii. Be familiar with the operation of all equipment worn or employed by the buddy and be prepared to correct in case of malfunction;

    iii. Maintain constant visual contact with the other during the dive (monitor the actions and conditions of the buddy);

    iv. Know the hand signals being used and acknowledge each signal as given;

    FAILURE TO ACKNOWLEDGE SHALL BE CONSIDERED AN EMERGENCY.

    v. Not leave the other except in the case of an emergency requiring the assistance of one of them; and

    vi. Abort the dive immediately if one becomes separated from the other(s) or one of them aborts the dive.

3. When it is unsafe to use the buddy system, a lifeline tended at the surface or tethered to an identifiable float located on the surface shall be used and visually monitored from a location that will allow for immediate assistance to be rendered to the submerged diver in the event of an emergency.

4. Each diver employing SCUBA should be equipped with two (2) functioning demand regulators and shall use an octopus rig when diving in excess of 60 feet.

5. Effective two-way communications with the surface (i.e. float, life-line, voice communication, etc.) shall be used when it does not interfere with the operations and at all times during solo diving.

6. No diver shall undertake to dive in a contaminated environment unless the diver's competence to engage in such work is acceptable to the Regulatory Authority.

7. It is the Producer's responsibility to ascertain that the working area is not contaminated.

C. Actors Involved in Underwater Work

When an actor is required to perform underwater work, it is essential that appropriate safety measures be implemented. A dedicated dive team should accompany the actor. Warm up vehicles and changing areas should be immediately available, as well as shower facilities.

It is recommended that medical assessments be made to ensure physical fitness for the rigors of underwater work. Work underwater involves physical and physiological stresses that can rapidly deplete reserves in an individual having a poor physical fitness level. It is necessary, therefore, that all divers have a good to excellent exercise tolerance.

The middle ear, the sinuses and the lungs are air-containing spaces in the body. The pressure in them must be equal to the surrounding pressure in order to prevent tissue damage. This means that the diver cannot be suffering from respiratory infections, cold, flu, etc.

Due to shooting demands and wardrobe restrictions, the risk of hypothermia should be monitored closely.

INDEX OF APPENDICES

Appendix A: First Aid Kits

Kit #1

Where there is only one worker employed at a workplace, the Producer shall provide not less than one #1 first aid kit, which shall contain the following:

1. **Equipment**
    i. 1 Safety Oriented Emergency First Aid Manual
    ii. 12 safety pins
    iii. 1 blunt nose splinter tweezers
    iv. 1 pair of 10 cm (4") scissors
2. **Dressings** (each item individually wrapped to maintain sterility)
    i. 2 sterile bandage compresses, 10 cm x 10 cm (4" x 4")
    ii. 12 sterile adhesive dressings, 2.5cm x 7.5cm (1" x 3")
    iii. 12 sterile pads, 7.5cm x 7.5cm (3" x3")
    iv. 4 triangle bandages, 95 cm x 95 cm (40" x 40")
3. **Adhesive Tape**
    i. 1 roll – 1.25 cm x 2.3 m (11/2" x 2.5 yds)
4. **Antiseptic**
    i. One 100 ml (4 oz) bottle peroxide, or in below freezing temperature, one 100 ml (4 oz) bottle of alcohol-based antiseptic cleansing agent for wounds (i.e.: Isopropyl Alcohol 70%)

Kit #2

Where there are more than one and up to twenty employees employed on any one shift at a workplace, the Producer shall provide not less than one #2 first aid kit, which shall contain the following:

1. **Equipment**
    i. 1 Safety Oriented Emergency First Aid Manual

ii. 1 first aid record book

iii. 12 safety pins

iv. 1 blunt nose splinter tweezers

v. 1 pair of 10 cm (4") scissors

2. **Dressings** (each item individually wrapped to maintain sterility)

i. 2 sterile bandage compresses, 10 cm x 10 cm (4" x 4")

ii. 16 sterile adhesive dressings, 2.5cm x 7.5cm (1" x 3")

iii. 16 sterile pads, 7.5cm x 7.5cm (3" x3")

iv. 6 triangle bandages, 95 cm x 95 cm (40" x 40")

3. **Adhesive Tape**

i. 1 roll – 1.25 cm x 2.3 m (11/2" x 2.5 yds)

4. **Antiseptic**

i. One 100 ml (4 oz) bottle peroxide, or in below freezing temperature, one 100 ml (4 oz) bottle of alcohol-based antiseptic cleansing agent for wounds (i.e.: Isopropyl Alcohol 70%)

Kit #3

Where there are more than 20 but less than 50 employees employed on any one shift at a workplace, the Producer shall provide not less than one #3 first aid kit, which shall contain the following:

1. **Equipment**

i. 1 Safety Oriented Emergency First Aid Manual

ii. 1 first aid record book

iii. 12 safety pins

iv. 1 blunt nose splinter tweezers

v. 1 pair of 10 cm (4") scissors

2. **Dressings** (each item individually wrapped to maintain sterility)

i. 6 sterile bandage compresses, 10 cm x 10 cm (4" x 4")

ii. 32 sterile adhesive dressings, 2.5cm x 7.5cm (1" x 3")

iii. 32 sterile pads, 7.5cm x 7.5cm (3" x3")

3. **Bandages**

   i. 6 triangle bandages, 95 cm x 95 cm (40" x 40")

   ii. 2 rolls of adhesive tape, 1.25 cm x 5 m (1 1/2" x 5 yds)

   iii. Tubular finger bandage with applicator, .01 size x 5 m (.01 size x 5.5 yds)

   iv. 10 finger tip dressings

   v. 10 knuckle pad dressings

4. **Antiseptic**

   i. One 100 ml (4 oz) bottle peroxide, or in below freezing temperature, one 100 ml (4 oz) bottle of alcohol-based antiseptic cleansing agent for wounds (i.e.: Isopropyl Alcohol 70%)

Where there are more than forty-nine employees employed on any shift at a workplace, the Producer shall provide one #3 first aid kit with an increase in the supply of dressings, bandages, and antiseptics proportionate to the additional number of employees in excess of forty nine.

Appendix B: Flotation Garments

All flotation garments, PFDs, or work-suits must be Coast Guard approved. The need for hypothermia protection varies by season. The following explains the primary characteristics of Personal Flotation Devices (PFDs), Life Jackets, Anti-Exposure Work Suits, and Immersion Suits. It is excerpted from information supplied by Mustang Engineered Technical Apparel Corporation, Richmond, British Columbia.

Personal Flotation Devices (PFDs)

A PFD, in its most basic form, is a sleeveless torso vest with a minimum level of buoyancy. It is not a life jacket and, therefore, does not guarantee self-righting or keeping the head clear of the surface in other than calm conditions. It will keep the wearer at the surface and provides a reasonable level of protection for an experienced swimmer in all but rough conditions. Its value to a non-swimmer is limited to reasonably calm conditions where rescue is at hand.

In the basic configuration, it provides no significant hypothermia protection and should not be relied upon for survival in water temperatures lower than about 15 degrees Celsius, unless there is rescue available within about 30 minutes.

Life Jackets

There are three types of life jackets in the Canadian Standards: The Small Vessel Regulation Life Jackets, the Canadian Steamship Regulation Life Jacket, and the SOLAS Life Jacket.

A Life Jacket by definition should provide an unconscious person self-righting and a guaranteed floating position that allows for breathing. The Canadian life jackets address these characteristics in various degrees; the small vessel life jacket to a limited extent, the standard life jacket for the most part, and the SOLAS life jacket in all respects. Life Jackets provide no hypothermia protection at all. Their advantage over basic PFDs is that they will protect against early drowning much better, particularly in heavy seas. This is important to note because research shows that most victims who drown prior to suffering the effects of hypothermia do so within six minutes of immersion.

Anti-Exposure Work Suits

The anti-exposure work suit has the same minimum buoyancy requirements as a PFD. In practice, however, it tends to have more because of technicalities in the standards. It has good hypothermia protection which should allow for about two hours survival in 0 degree Celsius water and increasing to about 6 hours in 15 degree Celsius water.

Immersion Suits

Immersion suits provide excellent buoyancy and hypothermia protection. There have been cases of survival in extremely cold water and rough conditions for periods of up to and, in rare cases, greater than 24 hours.

Appendix C: The Bio-Mechanics of Lifting

Most back injuries result from improper lifting. According to the principle of biomechanics, the worst lifting situation occurs when the body is extended over the load: the lower back becomes a fulcrum supporting the weight of the body plus the load. Twisting in this position invites injury. Keep your back upright to shift weight onto the powerful leg muscles and reduce the lever effect.

1. **Get a Firm Footing**

   Keep your feet apart for a stable base, point toes out.

2. **Bend Your Knees**

   Do not bend at the waist. Keep the principles of leverage in mind at all times.

3. **Tighten Stomach Muscles**

   Abdominal muscles support your spine when you lift, offsetting the force of the load. Train muscle groups to work together.

4. **Lift with Your Legs**

   Let the powerful leg muscles do the work of lifting, not your weaker back muscles.

5. **Keep the Load Close**

   Do not hold the load away from your body. The closer it is to your spine, the less force it exerts on your back.

6. **Keep Your Back Upright**

   Whether lifting or putting down the load, do not add the weight of your body to the load. Avoid twisting: this can cause injury.

REFERENCE: AMPTP Safety Bulletins

Appendix D: Adverse Weather Conditions

KNOW THE DIFFERENCE BETWEEN HEAT EXHAUSTION AND SUNSTROKE PRIOR TO ATTEMPTING TREATMENT!

Become familiar with the symptoms of Sunstroke and Heat Exhaustion. The treatment for each of these ailments is different. Knowing the difference could make the difference between life and death.

HEAT EXHAUSTION

Symptoms - the first signs of heat exhaustion are dizziness, weakness, headache, blurred vision, nausea, and staggering. The face becomes pale, there is profuse sweating, the pulse is weak and breathing is shallow. The person may become unconscious.

Treatment - when someone shows symptoms of heat exhaustion, immediately remove that person to a place where the air is circulating freely. Make the person lie down and keep him or her warm. If the victim is conscious, add a teaspoon of salt to a pint of cool water and give to the victim in small sips at frequent intervals. If the heat exhaustion symptoms persist, call a doctor.

Avoiding Heat Exhaustion - keep in good physical condition and stop to rest often when you begin to feel tired or faint. Increase dietary salt and fluids when working in extremely hot weather. Consult a physician first.

SUNSTROKE

Symptoms - the victim develops a severe headache, the face is red, the skin is hot and dry, there is no sweating, and pulse is strong and very rapid. The person has a high fever (up to 105 degrees).

Treatment - get the victim to professional medical treatment as soon as possible. In the meantime, place the individual in the shade. Loosen their clothing and cool the victim with the best means available. If the individual's temperature starts to drop, cover them with a light blanket so that the sudden change in body temperature will not cause shivering or convulsions.

Avoiding Heat Stroke - drink water, lemonade or citrus fruit juices. Wear clothing that is light weight, well-ventilated and loose. Replace the body salts lost through perspiration by making sure your salt and fluid intake is adequate.

HYPOTHERMIA

Hypothermia is a major life threatening emergency which kills up to 900 people each year in North America. Most cases occur in temperatures between -1 and +10 degrees Celsius. It can kill a vigorous, healthy person in less than four hours.

Symptoms - a drop in body core temperature results in partial or total loss of consciousness, slowed or arrested respiration, and slowed, irregular and ultimately arrested heartbeat.

Treatment - respiration must be ensured by airway maintenance. The arrested heart should be restarted. Replace wet clothing, wrap in blankets, etc. with a companion for extra warmth. The

body will attempt to conserve heat by drawing blood away from the extremities and to the body core, to protect the vital organs.

Therefore, DO NOT RUB the extremities or subject the casualty to unnecessary exercise. This would cause the cold blood to flow to the inner body, further reducing core temperature. When exposure to cold has been prolonged and the effects are severe, very little time should be spent trying to warm the person at the site. Obtain medical aid as quickly as possible.

Avoiding Hypothermia - rest well, eat well, wear warm layered clothing. Change out of sweaty clothes because water draws warmth away from the body faster than air. Be alert to windchill conditions. A one-degree Celsius air temperature (34 F) with a 40 km (25 mph) wind, can be as cold as -14C (+7F) with no wind!

During cold weather, two light wool shirts are better than one heavy one for warmth. Layering is the best way to dress so that as you warm up, you can remove clothing to keep comfortable.

FROSTBITE

Symptoms - frostbite leaves firm, cold and white areas on exposed skin. Mild cases may cause peeling/blistering in 24 to 72 hours (similar to mild or severe sunburn). In more serious cases, skin may become blotchy red, swollen and painful on re-warming. The severity of injury is determined by the extent and conditions of exposure.

Treatment - shelter the person from extremes of weather. Provide warmth and hot drinks. Loosen tight clothing, boots, etc. Protect damaged areas with warm, dry covering or by applying body heat. DO NOT apply direct heat, cold water or snow. DO NOT rub frozen areas. Obtain medical aid as quickly as possible.

Avoiding Frostbite - preventative measures, although obvious, are often ignored. Warm, multi-layered clothing with good hand and foot protection should be worn. Avoid constricting wrist bands and tight footwear. Warm headgear is particularly important since much heat is lost through the unprotected head. Stay dry. Fatigue, hunger, fear, alcohol and windchill (among other factors) increase the risk of injury. Watch each other for white spots in rosy cheeks, etc.

Appendix E: Underwater Stunts and Underwater Film Operations

1. Each diver shall maintain a log book that shall record the following information:

   i. Type of diving apparatus used;

   ii. Gas media breathed;

   iii. Time diver left surface;

   iv. Bottom time;

   v. Maximum depth obtained;

   vi. Time diver left bottom;

   vii. Time diver reached surface;

   viii. Surface interval, if a repetitive dive was undertaken;

   ix. Decompression table and schedule used;

   x. Date; and

   xi. Remarks (name of Production, unusual incidents, etc.).

2. As a **minimum**, each diver shall use the following equipment:

   i. Open circuit SCUBA, complete with demand regulator and tank with quick-release harness and reserve device or bail-out system;

   ii. Face mask;

   iii. Suitable knife;

   iv. Weight belt with quick-release closure;

   v. Submersible pressure gauge;

   vi. Exposure suit or protective clothing appropriate for the condition of work and the temperature of the water;

   vii. If free swimming, a manually inflatable buoyancy device;

   viii. Underwater watch for elapsed time indicator;

   ix. A device for summoning aid and receiving a recall from the surface while submerged; and

   x. A rescue beacon or strobe when SCUBA diving operations are to be carried out during the hours of darkness.

Appendix F: Occupational Health and Safety Policy

Occupational Health and Safety Policy

Under the Act, if a business employs five or more people on a regular basis, the employer is required to prepare a written occupational health and safety policy.

This policy must indicate that the employer is committed to occupational health and safety, and that the employer will co-operate with employees to meet the goal of a safer and healthier workplace.

The policy must also state the responsibilities of the employer and employees in creating and maintaining a safer and healthier workplace.

The Department of Labour and Advanced Education publishes a guide for policy preparation. Contact the Department for your free copy or log-on to the Occupational Health and Safety Division website.

www.gov.ns.ca/lwd/healthandsafety

Appendix G: Occupational Health and Safety Program

What is a program?

An occupational health and safety program contains the elements that make it possible to realize its policy objectives. Each program will be unique to the company that develops it, but some elements are needed to make them comply with the laws and to meet general health and safety standards.

What must a program contain?

1. An occupational health and safety program must have:

    i. A method to ensure that employees are trained on how to protect themselves when dealing with hazardous materials or situations and that the employees are supervised;

    ii. A method to establish and write safe work procedures and to make sure that employees use them; and

    iii. A description of how a Joint Occupational Health and Safety Committee and the Health and Safety Representatives fit within the program. The program must outline how the committee and the representatives gain access to a manager with adequate authority to address health and safety issues.

2. A system for identifying hazards, including:

    i. Evaluating/inspecting the work areas regularly;

    ii. A reporting method, with someone given the job of ensuring that the issues are addressed;

    iii. A clear idea of what, when, and how the employer will report to the committee or representative about workplace hazards;

    iv. A monitoring, follow-up, and control system for hazards that may be identified in the workplace;

    v. A system to keep all records concerning health and safety and any reports of inspections or orders written by the Department of Labour and Advanced Education, or tests performed on the workplace; and

    vi. A method for monitoring the implementation and effectiveness of the program.

Appendix H: Joint Occupational Health and Safety Committee

Joint Occupational Health and Safety Committee

The creation of a Joint Occupational Health and Safety Committee is part of the employer's and employees' responsibility and right to participate. A committee is required where 20 or more persons are regularly employed or the OHS Executive Director orders its establishment. Short duration projects (less than 4 weeks) involving more than 1 constructor do not normally require a project committee; however, where high risk or complex activities are carried out, it may be wise to form one.

The function of such a committee is to get employers and employees working together to improve health and safety in the workplace. Together they will make sure that:

1. Hazards are identified;
2. Health and safety requirements are complied with;
3. Health and safety matters or complaints arising in the workplace are quickly dealt with;
4. Regular inspections take place;
5. Advice on personal protective equipment is offered by the committee;
6. Policies or programs needed to be in compliance with the Act are reviewed in consultation with the committee; and
7. Records and minutes of committee meetings are kept.

When such a committee is created:

1. The employer and employees must agree on the number of committee members;
2. At least half of the committee members must be employees not performing management functions;
3. The committee must have co-chairs representing management and non-management interests, unless the members agree to an alternative method of chairing;
4. The committee must meet at least once a month, unless the members agree on a different schedule;
5. Employees on the committee are allowed time off work with pay for committee business; and
6. The committee must create its own rules of procedure.

Note: Productions in the screen based industry are unlike typical worksites, they tend to be for short duration and the number of employees on site can vary from day to day. Short duration projects (less than 4 weeks) do not normally require a JOHSC regardless of the number of employees. Since it is likely that a JOHSC may never be established it is highly recommended that a safety representative be appointed regardless of the

number of employees. Having a safety representative at all times will ensure that hazards, complaints, recommendations, inspections will be dealt with and the lines of communication between the employer and employees regarding the overall improvement of health and safety will continue.

Appendix I: Health and Safety Representatives

Health and Safety Representatives

In workplaces with more than 4 employees and no Joint and Occupational Health and Safety Committee, Health and Safety Representatives are part of the employer's and employee's responsibility and right to participate. The duties of a Health and Safety Representative are similar to those of a Joint Occupational Health and Safety Committee, except that records, minutes and other issues that pertain to meetings are not required.

Note: Productions in the screen based industry are unlike typical worksites, they tend to be for short duration and the number of employees on site can vary from day to day. Short duration projects (less than 4 weeks) do not normally require a JOHSC regardless of the number of employees. Since it is likely that a JOHSC may never be established it is highly recommended that a safety representative be appointed regardless of the number of employees. Having a safety representative at all times will ensure that hazards, complaints, recommendations, inspections will be dealt with and the lines of communication between the employer and employees regarding the overall improvement of health and safety will continue.

Appendix J: Communication of Information

Communication of Information

Communication of information is part of the employer's and employees' responsibility and right to know. It is extremely important to workplace health and safety that everyone in the workplace communicates information. Both the employer and the employee must take steps to make sure that everyone has access to the health and safety information that they require. Some of the items noted in the Act which improve good communications are:

1. An employer who receives a written request to respond to a recommendation from a Joint Occupational Health and Safety Committee or a Health and Safety Representative must respond within 21 days. If the employer cannot provide the information, they must give a written explanation. Although the Act requires the JOHSC to respond within 21 days it would expected that JOHSC's in this industry respond much sooner, considering the nature of the business and the short length of productions;

2. As employer is required to let the Joint Occupational Health and Safety Committee or a Health and Safety Representative know about reports on health and safety inspections, monitoring or tests, and, upon request provide the reports;

3. An employer must display where employees can see them the names of everyone on the Joint Occupational Health and Safety Committee or the Health and Safety Representative and how to get in touch with them. Whenever a Joint Occupational Health and Safety Committee meeting has been held, the minutes of that meeting have to be displayed;

4. A copy of all Occupational Health and Safety Regulations that relate to that workplace must be available so that an employee may read them;

5. A copy of the Act, a telephone number for the Department of Labour and Advanced Education, and the workplace health and safety policy (where one is required) must be displayed in a place where employees an easily read them; and

6. If an employer receives an order from the Department of Labour and Advanced Education, the employer must display the order, along with the notice of compliance, and any notice of appeal or appeal decision.

Appendix K: Workplace Monitoring

Workplace Monitoring

Employee representatives have a right to watch workplace health and safety monitoring and/or tests. If the employee asks, the monitoring and testing procedures must be explained so that the employee is able to understand what is going on.

Appendix L: Discriminatory Action

Discriminatory Action

An employer or union cannot take, or threaten to take, action that affects an employee's job because:

1. The employee has complied with the Act or Regulations, or contacted the Department of Labour and Advanced Education about a violation of the Act or Regulations;

2. The employee has spoken to the Joint Occupational Health and Safety Committee or Health and Safety Representative, serves on or does Committee work or is the Health and Safety Representative;

3. The employee has refused to do work that the employee believes is unsafe or unhealthy;

4. The employee is going to testify or has testified in court about violations of the Act or Regulations on the part of the employer; or

5. The employee has told the Joint Occupational Health and Safety Committee, the Health and Safety Representative or a Department of Labour and Advanced Education Officer about possible health and safety violations in the workplace.

Appendix M: Complaints

Complaints

Where an employee believes that the employer or union are taking discriminatory action, the employee may complain to a Department of Labour and Advanced Education Officer or, where available, initiate a grievance. Complaints to the Department of Labour and Advanced Education must be in writing and filed within 30 days of the action taken by the employer or union.

Upon receipt of a complaint of Discriminatory Action, a Department of Labour and Advanced Education Officer will decide whether or not the complaint is valid. If the complaint is found to be valid, then the Officer will issue an order requiring that any "damage" done to the employee is corrected. This could mean getting their job back, being paid their wages, etc.

If the Department of Labour and Advanced Education Officer decides the employee does not have grounds to complain, then the employee will be notified of the decision.

Appendix N: Department of Labour and Advanced Education Inspections and Orders

Department of Labour and Advanced Education Inspections and Orders

A Department of Labour and Advanced Education Officer may inspect a business at any reasonable time of the day or night. The Officer may request records, conduct an Investigation, take samples, seize an item or question the employer or employees.

Appendix O: Accidents

Accidents

An employer must notify the Department of Labour and Advanced Education within 24 hours if an accident happens in the workplace where a person has been killed or if there has been an accidental explosion, regardless of whether or not a person has been injured. If there has been a fire or accident at the workplace where an employee has been seriously injured, then the employer has seven days to notify the Department of Labour and Advanced Education.

Appendix P: Appeals

Appeals

A person who is directly affected by an order or decision of a Department of Labour and Advanced Education Officer may appeal the order or decision. The appeal must be in writing and filed within fourteen days of the order or decision being received.

The appeal process has two levels. The first level is to the Director of the Department of Labour and Advanced Education's Occupational Health and Safety Division, who may confirm, vary, revoke or suspend the order or decision. This decision may in turn be appealed by any directly affected party to an independent Appeal Panel, who may confirm, vary, revoke or suspend the Director's decision. The Appeal Panel's ruling is final.

Appendix Q: Fire Extinguishers

Fire Protection and Escape

Ensuring there is adequate fire protection is the responsibility of the employer. The Nova Scotia Occupation Safety General Regulations do not require a fire extinguisher be installed in a vehicle; however, if the employer does install fire extinguishers they are responsible for the employee being trained in how to use one and to be aware of the hazards in fighting vehicle fires.

In regard to the type of fire protection used; if the workplace is a project, the Nova Scotia Occupation Safety General Regulation requires the employer to consider Part 8 of the Nova Scotia Building Code under the Building Code Act to determine the type of protection needed. If the workplace is in an occupied or enclosed structure the employer is to consider the Fire Safety Act. Note: the same references are to be considered for determining the quantity of fire protection.

Appendix R: Drinking Water, Sanitation and Accommodation

Drinking Water

An employer, where reasonably practicable, has to make sure employees have access to enough water suitable for drinking and hand cleaning. Employee access to water can be no further than 200 meters (about 650 feet) and the water must meet the standards in "Guidelines for Canadian Drinking Water Quality" 6th edition, 1996.

If there are outlets for drinking and non-drinking water the employer must clearly and appropriately label the outlets. Unless the water is available from a fountain (or any upward jet) the employer will provide individual sanitary cups (paper cups for example) where reasonably practicable.

Toilets

A minimum number of toilets for men and women will be made available depending on the maximum number of each normally at the workplace. Note the regulation outlines toilet requirements for numbers of employees; for example: less than 9 people would require 1 toilet. If the total was mixed gender 1 toilet in a room that can be locked would be acceptable under the Regulations, more than 9 but not more than 24, 2 toilets and so on.

The regulation has a number of requirements the facility has to meet including: easy access, ventilation and lights, heated where reasonable, kept clean, sufficient paper supplies, a waste container, and maintained in working condition. If the facility is a portable unit it has to be emptied and serviced so it does not overflow. The employer is also responsible to make sure the employee has a reasonable chance to use the facilities.

Hand Cleaning Facilities

Where the workplace has running water (plumbing) the Regulations state the employer has to provide a sink (or something similar) in a room with 1 toilet. Extra sinks would be needed where there are more urinals or toilets. Where there is no running water but there are toilet facilities the employer will provide hand cleaning facilities or supplies where reasonably practicable. Where there is a wash basin an employer also has to provide hot and cold running water, soap or another appropriate cleanser, and an adequate amount of sanitary hand drying supplies (paper towels for example).

Accommodation

Depending on the workplace and the type of work being done an eating area may have to be provided by the employer. If the work being done creates the chance food will be contaminated the employer will provide an enclosed eating area away from the work area. If the workplace is outdoors the employees should be protected from bad weather conditions. If an eating area is provided then the eating area needs to be kept clean, have adequate light, heat and ventilation (where appropriate), have enough seats and tables for the number of people that would normally use the area, and have garbage containers.

Work Clothes and Change Areas

Where the nature of work makes it necessary for a person to change out of street clothes and into work clothes to protect the person's health or safety, an employer shall provide a changing room and storage for the street and work clothes that will prevent them from becoming wet or dirty.

If the work clothes may get contaminated/dirty so that the health or safety of a person is affected by the exposure, then an employer shall provide:

1. Work clothes for the person's use;
2. Storage for the person's street and work clothes that will prevent the street clothes from becoming wet, dirty or contaminated;
3. A changing room; and
4. Work clothes to be cleaned as necessary.

Appendix S: WHMIS

Section 4 of the Workplace Hazardous Materials Information System (WHMIS) Regulations generally states, an employer is to take every reasonable precaution to ensure an employee who works with a controlled product or in proximity to a controlled product is instructed in WHMIS.

So if an employee does NOT work with, or near, a controlled product they would not need to be instructed.

However, caution needs to be exercised because controlled products (including most dangerous chemicals, including generic and household chemicals) are extremely common and it would be a rare for a workplace to have absolutely no controlled products on site.

Some examples of commonly used controlled products are:

- oil based paints,
- bleach drain cleaner,
- some types of liquid paper,
- some pesticides, and
- some window or computer screen cleaners.

Having employees trained in basic WHMIS is an important precautionary step for the health and safety of a workplace. Basic WHMIS training provides knowledge regarding: what WHMIS is, the meaning of WHMIS symbols, and what Material Safety Data Sheets are, the information they contain and where they may be found. The delivery of the training is not specified; i.e. it may be classroom based or computer based, but it should have some measure for testing the employees understanding of the material.

TLV'S

Nova Scotia Occupational Health and Safety Regulations require compliance with the Threshold Limit Values (TLVs) relating to gases, vapours, mists, fumes, smoke, dust, and other chemical substances and physical agents established and maintained by the American Conference of Governmental Industrial Hygienists.

Appendix T: PPE – Personal Protective Equipment

Specifically, this deals with personal protective equipment which addresses hazards to:

- eyes, face or neck,
- head,
- foot or skin,
- respiratory,
- risk of drowning.

Note: not all PPE is covered by the regulations. For example, hearing protection is not specifically mentioned in the regulations, but it is still the responsibility of the employer to ensure equipment, appropriate to the hazard is used.

An employers general duties in regard to PPE are to ensure that it be adequate to the nature of the task, considering the location and conditions of the workplace and of course the hazards. Also, where PPE is required an employer is expected to ensure employees have the necessary training in the use and care of the equipment and that they wear the equipment in keeping with their training and instruction. An employee has the duty to wear the PPE as required. In addition to ensuring the use and training of PPE the employer also needs to ensure the equipment is maintained by a competent person and tested or visually inspected before each use in accordance to manufacturer's specifications. If equipment is identified as being defective then it is not to be used until it is repaired, or if necessary, replaced.

Hazard to Eyes, Face or Neck

If a person is exposed to a hazard that could irritate or injure the eyes, face or front of the neck then equipment that complies with CSA Standard CAN/CSA Z94.3 - 99 "Industrial Eye and Face Protectors" will be used. Note this does not apply to a person operating a chain saw who is wearing adequate face protection as a substitute to the requirement in the Standard. The forestry industry most commonly uses a face screen as protection.

Hazard to Head

If a person is exposed to a hazard that could injure the head then equipment that complies with CAN/CSA Z94.1 - 92 "Industrial Protective Headwear" or CSA Z94.1 - M1977 "Industrial Protective Headwear" will be used. While it is not cited in the regulations hard hats that comply with CAN/CSA Z94.1-05 2005 "Industrial Protective Headwear - Performance, Selection, Care and Use" are also acceptable. Note that "bump caps" are not covered by either standard and therefore would not be allowed. Also headwear that complies with the standard ANSI Type 1 and Type 2 is not allowed as the performance system are not the same.

Hazard to Foot and Skin

Footwear must comply with CSA Standard CAN/CSA Z195-M92 "Protective Footwear". The standard has three grades of footwear, all have toe protection and may provide additional types of protection - sole, electrical shock, etc. The grades are identified by a coloured triangle and the standard offers some suggested uses for the various grades.

- Grade 3 - red triangle; suggested use, hospital workers
- Grade 2 - yellow triangle; suggested use, retail workers
- Grade 1 - green triangle; suggested use, all other work environments

If the footwear also has electrical shock resistance as part of its safety features, it will have a white rectangle on it. The regulation does not specify the design of the shoe; the potential hazard an employee will face should guide the selection. For example, if there is a hazard of having the foot and ankle caught between two objects then a high boot style is appropriate.

Note: Toe caps are a separate form of protection worn over regular footwear. Toe caps do not meet the standard and do not comply with the regulations.

Hazards to skin may be addressed in a number of ways. The guiding principle should always be "is the protection adequate to the hazard". Canvas gloves may be appropriate for handling material that could cause scrapes or abrasions, but may not be enough for puncture hazards. For handling caustic or corrosive materials, gloves need to be made of appropriate materials. An apron may also be required for further protection. Leggings are appropriate leg protection against welding sparks. Workers using chain saws will need leg protection resistant to chain saw cuts.

Respiratory Hazard

An employer must provide and pay for protective breathing equipment that is adequate to the respiratory hazard. An employer providing adequate respiratory protective equipment would be required to ensure the equipment is **at least** qualitative fit tested, or may use quantitative fit testing.

If a self-contained breathing apparatus is needed, the regulations requires the air to comply with or exceed purity standards noted in clause 5.5 of CSA standard CAN3-Z180.1 - M85,"Compressed Breathing Air and Systems. The regulation requires only air used in SCBA's to meet the CSA standard. Compressed air used in air line respirators, sandblasting hoods, etc. is not being addressed here.

Drowning Hazard

If an employee is exposed to a drowning hazard the employer must provide a personal flotation device that complies with CGSB Standard CAN/CGSB 65.11 - M88 "Personal Flotation Devices". The standard covers PFDs for persons over 41 kg (90 lbs) and are designed to be worn continuously. There are two types: inherently buoyant (floats on its own), and some inherent buoyancy supplemented by an inflatable device. Approved PFDs will have a label noting, among other items, that it is approved by the Department of Transport, Canada with a corresponding approval number. For persons less than 41 kg employers would need to ensure an appropriate flotation device is used or an alternative means of protection is used.